September 26, 2026

# CURRICULUM VITAE

## 1. PERSONAL DATA


First Name: Christian
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Organization: Université Gustave Eiffel
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## 2. HIGHEST DEGREE

Thèse de Doctorat d'Etat ès Sciences Physiques obtained in 1979 at Pierre et Marie Curie (Paris VI) University, Paris, France.

## 3. PROFESSIONAL EXPERIENCE

. Professor Emeritus, Université Gustave Eiffel, 2016 - present.
. Professor, Université Paris-Est Marne-la-Vallée (become Université Gustave Eiffel) , 2001 - 2016.
. Researcher, ONERA (French Aeronautical & Aerospace Research Center), 1981 - 2001.

## 4. TEACHING (until September 2016).

. Uncertainty Modeling and Uncertainty Quantification in Computational Mechanics - Applications to Structural Dynamics, Vibrations and Vibroacoustics of Complex Mechanical Systems.
. Structural dynamics and vibration
. Probability and Stochastic Modeling in Mechanics.

## 5. RESEARCH PROFILE

The research is in the field of applied mathematics, at the interface of probability theory and mathematical statistics, stochastic modeling, and numerical simulation for engineering sciences, particularly theoretical and computational mechanics. It has focused on the mathematical modeling of random phenomena and stochastic dynamical systems, the theory of stochastic fields, and the probabilistic modeling of uncertainties in complex systems, including multiscale modeling, uncertainty quantification, and statistical inverse problems. In particular, a nonparametric probabilistic approach to uncertainty for modeling random operators, based on random matrix theory, has been developed. More recently, the research has addressed probabilistic and statistical learning, as well as machine learning, for high-dimensional problems with limited datasets, while also exploring probabilistic learning formulations adapted to quantum computers.

## 6. AWARDS AND HONORS

. 1985 "Madame Victor Noury" Prize awarded by the French Academy of Sciences in Paris.
. 2001 "Research Award" in the area of Stochastic Dynamics awarded by IASSAR (International Association for Structural Safety and Reliability) at ICOSSAR 2001 at Newport Beach, California, USA, June 17-22, 2001.
. 2011 "Senior Research Prize" for his leadership and most outstanding scientific work in the areas of modeling in linear and non linear dynamics, structural acoustics, vibroacoustics and coupled systems, awarded by EASD (European Association of Structural Dynamics) at EURODYN 2011, Leuven, July 4-6, 2011.
. 2018 "IACM Award Computational Mechanics" delivered by the International Association for Computational Mechanics (IACM) at the 13th World Congress in Computational Mechanics, New York, USA, 22-27 July 2018.
. 2022 "Alfred M. Freudenthal Medal" delivered by the American Society of Civil Engineers (ASCE) for "fundamental contributions to computational stochastic mechanics and its application to emerging problems in engineering" at

the EMI 2022 Conference in Baltimore, MD, USA, May 31- June 3, 2022.

. 2001 "Fellow of the Acoustical Society of America".

. 1995 "Chevalier dans l'ordre des Palmes Académiques" awarded by the French Ministry of Education.

. 2015 "Chevalier dans l'ordre National du Mérite" awarded by the French Ministry of Education.

. 2016 "Officier dans l'ordre des Palmes Académiques" awarded by the French Ministry of Education.

. Plenary speaker, ICCM 2024, 15th International Conference of Computational Methods, Paris, Virtual Conference, July 15-18, 2024.

. General lecturer, CMDS 14, 14th International Symposium on Continuum Models and Discrete Systems, Paris, France – June 26-30, 2023.

. Plenary speaker, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering and COMPDYN 2019, 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Crete, Greece, June 24-26, 2019.

. Plenary speaker, UNCECOMP 2017, 2nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering and COMPDYN 2017, 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Rhodes Island, Greece, June 15-17, 2017.

. Semi-Plenary Speaker, ECCOMAS Congress 2016, European Congress on Computational Methods in Applied Sciences and Engineering, the Island of Crete, Greece, June 5-10, 2016.

. Plenary Speaker, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015.

. Semi-Plenary Speaker, COMPDYN 2009, Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Rhodes, Greece, June 22-24, 2009.

. Plenary Speaker, EM08, The Inaugural International Conference of the Engineering Mechanics Institute, University of Minnesota, Minneapolis, Minnesota, USA, May 16-21, 2008.

. Semi-Plenary Speaker, COMPDYN 2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, June 13–15, 2007.

. Plenary Speaker, ICOSSAR 2005, 9th International Conference on Structural Safety and Reliability, Roma, Italy, June 19-22, 2005.

. Plenary Speaker, EURODYN 2002, 4th European Conference on Structural Dynamics, Munich, September 2-5, 2002.

. Plenary Speaker, 16th International Congress on Acoustics and 135th meeting Acoustical Society of America, Seattle, Washington, USA, June 20-26, 1998.

## 7. PUBLICATIONS

Preprints of papers and communications can be found in Multidisciplinary Open Archive, HAL, go to the link
https://pagespro.univ-gustave-eiffel.fr/christian-soize

Published papers and communications can be found in Scholar Google, go to the link
https://scholar.google.fr Christian Soize

### 7.1. Books

[9] - C. Soize, *Uncertainty Quantification. An Accelerated Course with Advanced Applications in Computational Engineering*, Interdisciplinary Applied Mathematics, Springer, New York, **2017**.

[8] - R. Ohayon and C. Soize, *Advanced Computational Vibroacoustics - Reduced-Order Models and Uncertainty Quantification*, doi: 10.1017/CBO9781107785328, Cambridge University Press, New York, **2014**.

[7] - C. Soize, *Stochastic Models of Uncertainties in Computational Mechanics*, doi: 10.1061/9780784412237, American Society of Civil Engineers (ASCE), Reston, **2012**.

[6] - C. Soize, *Dynamique des structures, Eléments de base et concepts fondamentaux*, Ellipse, Paris, **2001**.

[5] - R. Ohayon and C. Soize, *Structural Acoustics and Vibration*, doi: 10.1016/B978-0-12-524945-4.X5000-2, Academic Press, San Diego, London, **1998**.

[4] - C. Soize, *The Fokker-Planck Equation for Stochastic Dynamical Systems and its Explicit Steady State Solutions*, doi: 10.1142/2347, World Scientific Publishing Co Pte Ltd, Singapore, **1994**.

[3] - C. Soize, *Méthodes mathématiques en analyse du signal*, Masson, Paris, **1993**.

[2] - P. Krée and C. Soize, *Mathematics of Random Phenomena*, D. Reidel Publishing Company, Dordrecht, **1986**, doi: 10.1007/978-94-009-4770-2 (version Anglaise revue et augmentée de *Mécanique aléatoire*).

[1] - P. Krée et C. Soize, *Mécanique aléatoire*, Dunod, Paris, **1983**.

### 7.2. Chapters of books

[16] - C. Soize, Probabilistic learning inference constrained by an uncertain model and a target: A general method with application to elasticity homogenization without scale separation, pp. 1-14, doi: 10.1007/978-3-031-58665-1_1. In: Willot, F., Dirrenberger, J., Forest, S., Jeulin, D., Cherkaev, A.V. (eds) Continuum Models and Discrete Systems. CMDS 2023, doi: 10.1007/978-3-031-58665-1. Springer Proceedings in Mathematics & Statistics, vol 457. Springer, Cham, 2024.

[15] - J. Guilleminot, C. Soize, Non-Gaussian Random Fields in Multiscale Mechanics of Heterogeneous Materials. In H. Altenbach and A. Ochsner (eds), *Encyclopedia of Continuum Mechanics*, pp. 1826-1834 , doi:10.1007/978-3-662-55771-6_68, Springer, Berlin, Heidelberg, 2020.

[14] - R. Ohayon, C. Soize, Computational vibroacoustics in low- and medium- frequency bands: damping, ROM, and UQ modeling , pp. 134-172, in *Advances in Vibroacoustics and Aeroacoustics of Aerospace and Automotive Systems*, edited by R. Citarella and L. Federico, pp.134-172, doi: 10.3390/books978-3-03842-852-7, ISBN 978-3-03842-852-7, Applied Sciences, MDPI, Basel, Switzerland, 2018.

[13] - C. Soize, Random matrix models and nonparametric method for uncertainty quantification, Vol. 1, pp. 219-287, in *Handbook of Uncertainty Quantification*, edited by R. Ghanem, D. Higdon, and H. Owhadi, doi:10.1007/978-3-319-11259-6_5-1, Springer International Publishing Switzerland, 2017.

[12] - C. Soize, Random vectors and random fields in high dimension - Parametric model-based representation, identification from data, and inverse problems, Vol. 2, pp. 883-935, in *Handbook of Uncertainty Quantification*, edited by R. Ghanem, D. Higdon, and H. Owhadi, doi:10.1007/978-3-319-11259-6_30-1, Springer International Publishing Switzerland, 2017.

[11] - R. Ohayon, C. Soize, Structural dynamics, pp. 1424–1429, in *Encyclopedia of Applied and Computational Mathematics (EACM)*, edited by B. Engquist, doi:10.1007/978-3-540-70529-1, Springer-Verlag Berlin Heidelberg, 2015.

[10] - J. Yvonnet, Q. C. He, E. Monteiro, A. Binh Tran, C. Toulemonde, J.Sanahuja, A. Clément, C. Soize, Non-concurrent computational homogenization of nonlinear, stochastic and viscoelastic materials, pp. 1157–1196, in *Handbook of Micromechanics and Nanomechanics*, edited by Shaofan Li (UC Berkeley) and Prof. Xin-Lin Gao (Univesity Texas), Pan Stanford Publishing Pte Ltd, http://www.panstanford.com, 2013.

[9] - A. Batou, C. Soize, Random dynamical response of a multibody system with uncertain rigid bodies, pp.1-14, in *Computational Methods in Stochastic Dynamics, Volume 2*, edited by M. Papadrakakis, M. Fragiadakis, and V. Plevris, Computational Methods in Applied Sciences Series, Volume 26, DOI $10.1007/978-94-007-5134-7-1$, Springer, Dordrecht, 2012.

[8] - C. Soize, Stochastic models of uncertainties in computational structural dynamics and structural acoustics, pp. 61–113, in *Nondeterministic Mechanics*, edited by I. Elishakoff and C. Soize, CISM Courses and Lectures (Udine), International Centre for Mechanical Sciences, vol. 539, doi: 10.1007/978-3-7091-1306-6_2, Springer Wien, New York, 2012.

[7] - C. Soize, Random matrices in structural acoustics, pp. 206–230, in *New Directions in Linear Acoustics: Random Matrix Theory, Quantum Chaos and Complexity*, edited by M. Wright and R. Weaver, Cambridge University Press, Cambridge, 2010.

[6] - C. Soize, C. Chen, J.-F. Durand, D. Duhamel, L. Gagliardini, Computational elastoacoustics of uncertain complex systems and experimental validation, pp. 71-84, in *Computational Structural Dynamics and Earthquake Engineering*, edited by M. Papadrakakis, D.C. Charmpis, N.D. Lagaros, and Y. Tsompanakis, Structures and Infrastructures Series, Volume 2, Published by CRC Press / Balkema, Taylor and Francis Group, London, UK, 2009.

[5] - F. Poirion, C. Soize, Numerical methods and mathematical aspects for simulation of homogeneous and non homogeneous Gaussian vector fields, pp. 17–53, in *Probabilistic Methods in Applied Physics*, edited by P. Krée and W. Wedig, doi: 10.1007/3-540-60214-3_50, Springer-Verlag, Berlin, 1995.

[4] - C. Soize, Exact steady-state solution of FKP equation in higher dimension for a class of non-linear Hamiltonian dissipative dynamical systems excited by Gaussian white noise, pp. 284–309, in *Probabilistic Methods in Applied Physics*, edited by P. Krée and W. Wedig, doi: 10.1007/3-540-60214-3_61, Springer-Verlag, Berlin, 1995.

[3] - C. Soize, Prediction of the high-frequency behavior of coupled fluid structure systems by the SEA method and applications, pp. 55–77, in *Computational Methods for Fluid-Structure Interaction*, edited by J.M. Crolet and R. Ohayon , Longman Scientific and Technical, 1994.

[2] - C. Soize, *Problèmes classiques de dynamique stochastique : méthodes d'étude*, Collection Mathématiques Appliquées, Numéro **11**, Fascicule **A1 346**, pp. 1–61, Techniques de l'Ingénieur, traité Sciences Fondamentales, Edition Périodique TI, Paris, 1988.

[1] - C. Soize, The local effects in the linear dynamic analysis of structures in the medium frequency range, pp. 253–275, in *Local Effects in the Analysis of Structures*, edited by P. Ladevèze, Elsevier, Amsterdam, 1985.

### 7.3. Editor of Books, Proceedings, and Guest Editor of Special Issues of International Journals

[10] - V. Papadopoulos, E.M. Chatzi, R. Ghanem, C. Soize, Guest Editors of the Special Issue "Advanced Machine Learning for Uncertainty Quantification" in *Computer Methods in Applied Mechanics and Engineering*, **442**, 118061 (2025), doi:10.1016/j.cma.2025.118061.

[9] - A.H. Gandomi, M. Mignolet, C. Soize,Y. Wang, Guest Editors of the Special Issue "Machine Intelligence for Engineering Under Uncertainties" in *Journal of Computing and Information Science in Engineering, ASME*, **23**(1)010201, 2023, doi:10.1115/1.4056396.

[8] - A.H. Gandomi, C. Soize, J.R. Stewart, Guest Editors of the Special Issue "AI in Computational Mechanics and Engineering Sciences" in *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2023.115935, **407**, 115935, 2023.

[7] - J.L. Beck, W. Graf, C. Soize, Guest Editors of the Special Issue: "Computational Intelligence in Structural Engineering and Mechanics" of *Computer-Aided Civil and Infrastructure Engineering*, doi:10.1111/mice.12150, **30**(5), pp. 329-411, 2015.

[6] - J.L. Beck, W. Graf, C. Soize, Guest Editors of the Special Issue: "Computational Intelligence in Structural Engineering and Mechanics" of *Computer-Aided Civil and Infrastructure Engineering*, doi:10.1111/mice.12070, **29**(3), pp. 159-233, 2014.

[5] - J.L. Beck, W. Graf, C. Soize, Guest Editors of the Special Issue: "Computational Intelligence in Structural Engineering and Mechanics" of *Computer-Aided Civil and Infrastructure Engineering*, doi: 10.1111/j.1467-8667.2012.00784.x, **27**(9), pp. 639-730, 2012.

[4] - I. Elishakoff and C. Soize (Eds), *Nondeterministic Mechanics*, International Centre for Mechanical Sciences (CISM - Udine) book, ISBN 978-3-7091-1305-9, Springer Wien, New York, 2012.

[3] - M. Ichchou, C. Soize, M. Haddar (Guest Eds), Dynamics of Materials, Structures and Systems, *European Journal of Computational Mechanics*, **20**(1-4) 7-245 (2011).

[2] - C. Soize and G.I. Schueller (Eds), *Structural Dynamics EURODYN 2005*, ISBN 90 5966 033 1, Millpress, Rotterdam, Netherlands, Vol. 1 pp. 1-758, Vol. 2 pp 761-1528, Vol. 3 pp. 1533-2250 (2005).

[1] - R. Bouc and C. Soize (Eds), *Progress in stochastic structural dynamics*, Publications du LMA-CNRS, ISBN 2-909669-16-5, **152** (1999).

### 7.4. Papers in Refereed Journals

**2027**

[284] - C. Soize, Physics-informed random neural architectures on compact boundaryless multiply connected manifolds for random-operator models in machine learning and uncertainty quantification, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2026.119437, **463**, Part B, 119437-1-48 (2027).

**2026**

[283] - C. Soize, Probabilistic learning on manifolds for statistical surrogate models in uncertain nano-to-macro stochastic systems, *International Journal of Computational Methods*, doi:10.1142/S0219876224410044, **23**(5), 2441004-1-27 (2026).

[282] - G. Perrin, R. Jorge do Marco, C. Soize, C. Funfschilling, Estimating intractable posterior distributions through Gaussian process regression and Metropolis-adjusted Langevin procedure, *Statistics and Computing*, doi: 10.1007/s11222-026-10949-y, **36**(198), 1-21 (2026).

[281] - G. La Valle, C. Soize, A Cauchy-Piola framework for micro-based micromorphic continua. Part II: A geometric theory of elastoplasticity, ZAMP - Journal of Applied Mathematics and Physics (Zeitschrift fur Angewandte Mathematik und Physik), doi:10.1007/s00033-026-02824-7, **77**(6), 175:1-29 (2026).

[280] - G. La Valle, C. Soize, A. Misra, I. Giorgio, A nonlinear micropolar continuum model with diffusion-reaction equation for remodeling of bone with trabecular lattice microarchitecture, *Mathematics and Mechanics of Solids*, doi:10.1177/10812865251413553, 1-18 (2026).

[279] - G. La Valle, C. Soize, D.J. Steigmann, A Cauchy-Piola framework for micro-based micromorphic continua, *Mathematics and Mechanics of Complex Systems*, doi:10.2140/memocs.2026.14.71, **14**(1), 71-94 (2026).

[278] - R. Jorge Do Marco, G. Perrin, C. Soize, C. Funfschilling, Bayesian calibration with missing data and model discrepancies: Application to high-speed train with uncertain control, *Journal of Sound and Vibration*, 10.1016/j.jsv.2026.119830, published **637**, 119830, 1623 (2026).

[277] - O. Ezvan, C. Desceliers, C. Soize, E. Capiez-Lernout, Neural network hyperreduction for parameterized computational models in nonlinear stochastic dynamics, *Computational Mechanics*, doi: 10.1007/s00466-025-02739-6, published online, 14 February 2026.

**2025**

[276] - Q.-D. To, C. Soize, Size effects of rarefied gas flows in nanochannels by simulations based on statistical surrogate model for atomistic collisions, *Physical Review E*, doi:10.1103/mcz3-4fkd, **112**(2),025303 (2025).

[275] - C. Soize, L. Joubert-Doriol, A.F. Izmaylov, Quantum computer formulation of the FKP-operator eigenvalue problem for probabilistic learning on manifolds, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2025.118080, **443**, 118080 (2025).

[274] - G. La Valle, C. Soize, From discrete to continuum: a generalized Eeuler-Maclaurin framework for scale effects in nanomechanics, *Journal of Elasticity*, doi:10.1007/s10659-025-10158-0, **157**(3), 67 (2025).

[273] - E. Jewell, C. Farhat, C. Soize, A tractable nonparametric probabilistic approach for modeling and quantifying model-form uncertainty in turbulent CFD, *Journal of Computational Physics*, doi:10.1016/j.jcp.2025.114067, **536**, 114067 (2025).

**2024**

[272] - C. Soize, R. Ghanem, Transient anisotropic kernel for probabilistic learning on manifolds, *Computer Methods in Applied Mechanics and Engineering*, doi: 10.1016/j.cma.2024.117453, **432**, 117453 (2024).

[271] - C. Soize, Quy-Dong To, Polynomial-chaos-based conditional statistics for probabilistic learning with heterogeneous data applied to atomic collisions of Helium on graphite substrate, it Journal of Computational Physics, on line 25 October 2023, doi:10.1016/j.jcp.2023.112582, **496**, 112582, pp. 1-20 (2024).

[270] - C. Soize, R. Ghanem, Probabilistic-learning-based stochastic surrogate model from small incomplete datasets for nonlinear dynamical systems, *Computer Methods in Applied Mechanics and Engineering*, online 12 October 2023, doi:10.1016/j.cma.2023.116498, **418**, 116498, pp.1-25 (2024).

[269] - A. Sinha, C. Desceliers, C. Soize, G. Cunha, Statistical metamodel of liner acoustic impedance based on neural network and probabilistic learning for small datasets, *Aerospace*, MDPI, doi:10.3390/aerospace11090717, **11**(717),1-14 (2024).

[268] - G. Perrin, C. Soize, Reconstruction of random fields concentrated on an unknown curve using irregularly sampled data, *Methodology and Computing in Applied Probability*, doi:10.1007/s11009-024-10079-w, **26**(9),1-20 (2024).

[267] - J. Nespoulous, G. Perrin, C. Funfschilling, C. Soize, Measurements-based constrained control optimization in presence of uncertainties with application to the driver commands for high-speed trains, *Physica D*, online 07 November 2023, doi:10.1016/j.physd.2023.133977, **457**, 133977, 1-14 (2024).

[266] - G. La Valle, C. Soize, Stochastic second-gradient continuum theory for particle-based materials. Part II, ZAMP - Journal of Applied Mathematics and Physics (Zeitschrift fur Angewandte Mathematik und Physik), doi:10.1007/s00033-024-02232-9, **75**(3), 93-112 (2024).

[265] - G. La Valle, C. Soize, Identifying second-gradient continuum models in particle-based materials with pairwise interactions using acoustic tensor methodology, *Journal of Elasticity*, doi:10.1007/s10659-024-10067-8, **156**, 623-639 (2024).

[264] - G. La Valle, C. Soize, A higher-order nonlocal elasticity continuum model for deterministic and stochastic particle-based materials, ZAMP - Journal of Applied Mathematics and Physics (Zeitschrift fur Angewandte Mathematik und Physik), doi:10.1007/s00033-024-02196-w, 75(2), 49, 1-15 (2024).

[263] - P. Chen, J. Guilleminot, C. Soize, Concurrent multiscale simulations of nonlinear random materials using probabilistic learning, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2024.116837, **422**, pp. 116837 (2024).

[262] - E. Capiez-Lernout, O. Ezvan, C. Soize, Updating nonlinear stochastic dynamics of an uncertain nozzle model using probabilistic learning with partial observability and incomplete dataset, *ASME Journal of Computing and Information Science in Engineering*, doi:10.1115/1.4065312, **24**(6), 061006, pp.1-17 (2024).

**2023**

[261] - C. Soize, An overview on uncertainty quantification and probabilistic learning on manifolds in multiscale mechanics of materials, *Mathematics and Mechanics of Complex Systems*, doi:10.2140/memocs.2023.11.87, **11**(1), 87-174 (2023).

[260] - C. Soize, Probabilistic learning constrained by realizations using a weak formulation of Fourier transform of probability measures, *Computational Statistics*, online 23 December 2022, doi:10.1007/s00180-022-01300-w, **38**(4),1879–1925 (2023).
Also in arXiv:2205.03078[stat.ML], 6 May 2022, https://doi.org/10.48550/arXiv.2205.03078.

[259] - A. Sinha, C. Soize, C. Desceliers, G. Cunha, Aeroacoustic liner impedance metamodel from simulation and experimental data using probabilistic learning, *AIAA Journal*, doi:10.2514/1.J062991, **61**(11), 4926-4934 (2023).

[258] - G. La Valle, B. E. Abali, G. Falsone, C. Soize, Sensitivity of a homogeneous and isotropic second-gradient continuum model for particle-based materials with respect to uncertainties, *ZAMM - Journal of Applied Mathematics and Mechanics (Zeitschrift fur Angewandte Mathematik und Mechanik)*, doi:10.1002/zamm.202300068, **103**(10), e202300068 (2023).

[257] - O. Ezvan, C. Soize, C. Desceliers, R. Ghanem, Updating an uncertain and expensive computational model in structural dynamics based on one single target FRF using a probabilistic learning tool, *Computational Mechanics*, doi: 10.1007/s00466-023-02301-2, **71**, 1161-1177 (2023).

[256] - E. Cataldo, L. Monteiro, C. Soize, A novel source-filter stochastic model for voice production, *Journal of Voice*, doi:10.1016/j.jvoice.2020.11.015, **37**(1), 1-8 (2023).

**2022**

[255] - C. Soize, Probabilistic learning inference of boundary value problem with uncertainties based on Kullback-Leibler divergence under implicit constraints, *Computer Methods in Applied Mechanics and Engineering*, **395**, 115078 (2022), doi:10.1016/j.cma.2022.115078.
Also in arXiv:2202.05112 [stat.ML], 10 Feb 2022, https://arXiv.org/abs/2202.05112.

[254] - C. Soize, R. Ghanem, Probabilistic learning on manifolds (PLoM) with partition, *International Journal for Numerical Methods in Engineering*, doi: 10.1002/nme.6856, **123**(1), 268-290 (2022).
Also in arXiv:2102.10894 [stat.ME], 22 Feb 2021, https://arXiv.org/abs/2102.10894.

[253] - J. Reyes, C. Desceliers, C. Soize, G. Gagliardini, Multi-frequency model reduction for uncertainty quantification in computational vibroacoutics, *Computational Mechanics*, doi:10.1007/s00466-021-02109-y, **69**, 661-682 (2022).

[252] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, Optimisation of train speed to limit energy consumption, *Vehicle System Dynamics*, doi:10.1080/00423114.2021.1965628, **60**(10), 3540-3557 (2022)

[251] - R. Ghanem, C. Soize, L. Mehrez, V. Aitharaju, Probabilistic learning and updating of a digital twin for composite material systems, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.6430, **123**(13), 3004-3020 (2022).

[250] - E. Capiez-Lernout, C. Soize, Nonlinear stochastic dynamics of detuned bladed disks with uncertain mistuning and detuning optimization using a probabilistic machine learning tool, *International Journal of Non-Linear Mechanics*, doi:10.1016/j.ijnonlinmec.2022.104023, **143**, 104023, 1-28 (2022).

**2021**

[249] - C. Soize, Stochastic elliptic operators defined by non-Gaussian random fields with uncertain spectrum, *The American Mathematical Society Journal Theory of Probability and Mathematical Statistics*, doi: 10.1090/tpms/1159, **105**, 113-136 (2021).
Also in arXiv 2106.07706 [math.PR], 14 June 2021, https://arXiv.org/abs/2106.07706.

[248] - C. Soize, Computational stochastic homogenization of heterogeneous media from an elasticity random field having an uncertain spectral measure, *Computational Mechanics*, doi: 10.1007/s00466-021-02056-8, **68**, 1003-1021 (2021).

[247] - C. Soize, R. Ghanem, Probabilistic learning on manifolds constrained by nonlinear partial differential equations for small datasets, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2021.113777, **380**, 113777 (2021).
Also in arXiv:2010.14324 [stat.ML], 27 Oct 2020, https://arXiv.org/abs/2010.14324.

[246] - C. Soize, A. Orcesi, Machine learning for detecting structural changes from dynamic monitoring using the probabilistic learning on manifolds, *Structure and Infrastructure Engineering*, doi:10.1080/15732479.2020.1811991, **17** (10), 1418-1430 (2021).

[245] - R. Ohayon, C. Soize, Q. Akkaoui, E. Capiez-Lernout, Novel formulation for the effects of sloshing with capillarity on elastic structures in linear dynamics, *International Journal for Numerical Methods in Engineering*, **122**(19), 5313-5330 (2021), doi:10.1002/nme.6290.

[244] - V. Dangla, C. Soize, G. Cunha, A. Mosson, M. Kassem, Robust 3D acoustic performance model for nacelle liners, *AIAA Journal*, https://doi.org/10.2514/1.J060299, **59**(10), 4195-4211 (2021).

[243] - E. Cataldo, C. Soize, A stochastic model of voice generation and the corresponding solution for the inverse problem using Artificial Neural Network for case with pathology in the vocal folds, *Biomedical Signal Processing and Control* (BSPC), doi: 10.1016/j.bspc.2021.102623, **68**, 102623 (2021).

[242] - M. Arnst, C. Soize, K. Bulthies, Computation of Sobol indices in global sensitivity analysis from small data sets by probabilistic learning on manifolds, *International Journal for Uncertainty Quantification*, doi: 10.1615/Int.J.UncertaintyQuantification.2020032674, **11** (2), 1-23 (2021).

**2020**

[241] - X.Q. Wang, M.P. Mignolet, C. Soize, Structural uncertainty modeling for nonlinear geometric response using non-intrusive reduced order models, *Probabilistic Engineering Mechanics*, doi: 10.1016/j.probengmech.2020.103033, **60** 103033, 1-9 (2020).

[240] - C. Soize, R. Ghanem, Probabilistic learning on manifolds, *Foundations of Data Science, American Institute of Mathematical Sciences (AIMS)*, doi: 10.3934/fods.2020013, **2** (3), 279-307 (2020).
Also in arXiv:2002.12653 [math.ST], 28 Feb 2020, https://arXiv.org/abs/2002.12653.

[239] - C. Soize, R. Ghanem, Physics-constrained non-Gaussian probabilistic learning on manifolds, *International Journal for Numerical Methods in Engineering*, doi: 10.1002/nme.6202, **121** (1), 110-145 (2020).

[238] - C. Soize, R. Ghanem, C. Desceliers, Sampling of Bayesian posteriors with a non-Gaussian probabilistic learning on manifolds from a small dataset, *Statistics and Computing*, doi: 10.1007/s11222-020-09954-6, **30**(5), 1433-1457 (2020).
Also in arXiv:1910.12717 [stat.ML], 28 Oct 2019, https://arXiv.org/abs/1910.12717.

[237] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Robust dynamic analysis of detuned-mistuned rotating bladed disks with geometric nonlinearities, *Computational Mechanics*, doi:10.1007/s00466-019-01790-4, **65**(3), 711-730 (2020).

[236] - G. Perrin, C. Soize, Adaptive method for indirect identification of the statistical properties of random fields in a Bayesian framework, *Computational Statistics*, doi: 10.1007/s00180-019-00936-5, **35**, 111-133 (2020).

[235] - M. Nesterova, F. Schmidt, C. Soize, Fatigue analysis of a bridge deck using the peaks-over-threshold approach with application to the Millau viaduct, *SN Applied Sciences*, doi:10.1007/s42452-020-3117-1,**2:1416**, 1-12 (2020).

[234] - M. Mignolet, C. Soize, Compressed principal component analysis of non-Gaussian vectors, *SIAM-ASA Journal on Uncertainty Quantification*, doi:10.1137/20M1322029, **8**(4), 1261-1286 (2020).

[233] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, High-speed train suspension health monitoring using computational dynamics and acceleration measurements, *Vehicle Systems Dynamics*, doi: 10.1080/00423114.2019.1601744, **58**(6), 911-932 (2020).

[232] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Uncertainty quantification for dynamics of geometrically nonlinear structures coupled with internal acoustic fluids in presence of sloshing and capillarity, *Journal of Fluids and Structures*, doi: 10.1016/j.jfluidstructs.2020.102966, **94** 102966, 1-15 (2020).

**2019**

[231] - H. Wang, J. Guilleminot, C. Soize, Modeling uncertainties in molecular dynamics simulations using a stochastic reduced-order basis, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2019.05.020, **354**, 37-55 (2019).

[230] - B. Staber, J. Guilleminot, C. Soize, J. Michopoulos, A. Iliopoulos, Stochastic modeling and identification of an hyperelastic constitutive model for laminated composites, *Computer Methods in Applied Mechanics and Engineering*, doi: 10.1016/j.cma.2018.12.036, **347**, 425-444 (2019).

[229] - C. Soize, R. Ghanem, Probabilistic Machine Learning for the small-data challenge in computational science, IACM Expressions, **44**(19), 3-9 (2019).

[228] - C. Soize, R. Ghanem, C. Safta, X. Huan, Z. P. Vane, J. Oefelein, G. Lacaze, H. N. Najm, Q. Tang, X. Chen, Entropy-based closure for probabilistic learning on manifolds, *Journal of Computational Physics*, **388**, 528-533 (2019), doi: 10.1016/j.jcp.2018.12.029.
Also in arXiv:1803.08161 [math.PR], 28 Feb 2020, https://arXiv.org/abs/1803.08161.

[227] - C. Soize, R. Ghanem, C. Safta, X. Huan, Z.P. Vane, J. Oefelein, G. Lacaze, H.N. Najm, Enhancing model predictability for a scramjet using probabilistic learning on manifold, *AIAA Journal*, doi: 10.2514/1.J057069, **57**(1), 365-378 (2019).

[226] - C. Soize, C. Farhat, Probabilistic learning for modeling and quantifying model-form uncertainties in nonlinear computational mechanics, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.5980, **117**(7), 819-843 (2019).

[225] - M. Nesterova, F. Schmidt, C. Soize, Probabilistic analysis of the effect of the combination of traffic and wind actions on a cable-stayed bridge, *Bridge Structures Assessment Design and Construction* , doi:10.3233/BRS-190151, **15**(3), 121-138 (2019).

[224] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, Statistical inverse identification for nonlinear train dynamics using a surrogate model in a Bayesian framework, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2019.06.024, **458**, 158-176 (2019).

[223] - D. Lavazec, G. Cumunel, D. Duhamel, C. Soize, Experimental evaluation and model of a nonlinear absorber for vibration attenuation, *Communication in Nonlinear Science and Numerical Simulation*, doi: 10.1016/j.cnsns. 2018.10.009, **69**, 386-397 (2019).

[222] - R. Ghanem, C. Soize, C. Safta, X. Huan, G. Lacaze, J. Oefelein, H. N. Najm, Design optimization of a scramjet under uncertainty using probabilistic learning on manifolds, *Journal of Computational Physics*, doi: 10.1016/j.jcp.-2019.108930, **399**, 108930, 1-14 (2019).

[221] - C. Farhat, R. Tezaur, T. Chapman, P. Avery, C. Soize, Feasible probabilistic learning method for model-form uncertainty in vibration analysis, *AIAA Journal*, doi: 10.2514/1.J057797, **57**(11), 4978-4991 (2019).

[220] - M. Arnst, C. Soize, Identification and sampling of Bayesian posteriors of high-dimensional symmetric positive-definite matrices for data-driven updating of computational models, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2019.04.025, **352**, 300-323 (2019).

[219] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Revisiting the experiment of a free-surface resonance of a liquid in a vibration tank using a nonlinear fluid-structure computational model, *Journal of Fluids and Structures*, doi: 10.1016/j.jfluidstructs.2019.01.005, **85**, 149-164 (2019).

**2018**

[218] - C. Soize, Design optimization under uncertainties of a mesoscale implant in biological tissues using a probabilistic learning algorithm, *Computational Mechanics*, doi: 10.1007/s00466-017-1509-x, **62**(3), 477-497 (2018).

[217] - I. E. Poloskov, C. Soize, Symbolic and numeric scheme for solution of linear integro-differential equations with random parameter uncertainties and Gaussian stochastic process input, *Applied Mathematical Modeling*, doi: 10.1016/j.apm .2017.11.024, **56**, 15-31 (2018).

[216] - G. Perrin, C. Soize, N. Ouhbi, Data-driven kernel representations for sampling with an unknown block dependence structure under correlation constraints, *Journal of Computational Statistics and Data Analysis*, doi: 10.1016/j.csda.2017 .10.005, **119**, 139-154 (2018).

[215] - R. Ghanem, C. Soize, C.-R. Thimmisetty, Optimal well-placement using probabilistic learning, *Data-Enabled Discovery and Applications*, Springer, doi: 10.1007/s41688-017-0014-x, **2**(1):4, 1-16 (2018).

[214] - R. Ghanem, C. Soize, Probabilistic nonconvex constrained optimization with fixed number of function evaluations, *International Journal for Numerical Methods in Engineering*, doi: 10.1002/nme.5632, **113**(4), 719-741 (2018).

[213] - C. Farhat, A. Bos, P. Avery, C. Soize, Modeling and quantification of model-form uncertainties in eigenvalue computations using a stochastic reduced model, *AIAA Journal*, doi: 10.2514/1.J056314, **56**(3), 1198-1210 (2018).

[212] - E. Cataldo, C. Soize, Stochastic mechanical model of vocal folds for producing jitter and for identifying pathologies through real voices, *Journal of Biomechanics*, doi: 10.1016/j.jbiomech.2018.04.031, **74**, 126-133 (2018).

[211] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Solving generalized eigenvalue problems for large scale fluid-structure models with mid-power computers, *Computers and Structures*, doi: 10.1016/j.compstruc.2018.04.007, **205**, 45-54 (2018).

**2017**

[210] - C. Soize, R. Ghanem, Polynomial chaos representation of databases on manifolds, *Journal of Computational Physics*, doi: 10.1016/j.jcp.2017.01.031, **335**, 201-221 (2017).

[209] - C. Soize, C. Farhat, A nonparametric probabilistic approach for quantifying uncertainties in low- and high-dimensional nonlinear models, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme .5312, **109**(6), 837-888 (2017).

[208] - C. Soize, Optimal partition in terms of independent random vectors of any non-Gaussian vector defined by a set of realizations, *SIAM-ASA Journal on Uncertainty Quantification*, doi: 10.1137/16M1062223, **5**(1), 176-211 (2017).

[207] - G. Perrin, C. Soize, S. Marque-Pucheu, J. Garnier, Nested polynomial trend for the improvement of Gaussian process-based predictors, *Journal of Computational Physics*, doi: 10.1016/j.jcp.2017.05.051, **346**, 389-402 (2017).

[206] - R. Ohayon, C. Soize, Computational vibroacoustics in low- and medium-frequency bands: damping, ROM, and UQ modeling, *Applied Sciences*, , doi:10.3390/app7060586, **7**(6), 586, 1-39 (2017).

[205] - N. Lestoille, C. Funfschilling, C. Soize, Predictive track maintenance: how statistics models and vehicle-track interaction open new prospects, in French: Maintenance prédictive des voies : comment les modèles statistiques et l'interaction véhicule-voie ouvrent de nouvelles perspectives, *Revue Générale des Chemins de Fer*, ISSN 0035-3183, **269**, 28-35 (2017).

[204] - W. Kassir, C. Soize, J.-V. Heck, F. De Oliveira, Non-Gaussian approach for equivalent static wind loads from wind tunnel measurements, *Wind and Structures*, An International Journal, doi: 10.12989/was.2017.25.6.589, **25**(6), 589-608 (2017).

[203] - O. Ezvan, A. Batou, C. Soize, L. Gagliardini, Multilevel model reduction for uncertainty quantification in computational structural dynamics, *Computational Mechanics*, doi: 10.1007/s00466-016-1348-1, **59**(2), 219-246 (2017).

[202] - E. Cataldo, C. Soize, Voice signals produced with jitter through a stochastic one-mass mechanical model, *Journal of Voice*, doi: 10.1016/j.jvoice.2016.01.001, **31**(1), 111.e9-111.e18 (2017).

[201] - E. Capiez-Lernout, C. Soize, An improvement of the uncertainty quantification in computational structural dynamics with nonlinear geometrical effects, *International Journal for Uncertainty Quantification*, doi:10.1615/Int.J.UncertaintyQuantification.2016019141, **7**(1), 83-98 (2017).

**2016**

[200] - C. Soize, R. Ghanem, Data-driven probability concentration and sampling on manifold, *Journal of Computational Physics*, doi:10.1016/j.jcp.2016.05.044, **321**, 242-258 (2016).

[199] - R. Ohayon, C. Soize, Nonlinear model reduction for computational vibration analysis of structures with weak geometrical nonlinearity coupled with linear acoustic liquids in the presence of linear sloshing and capillarity, *Computers and Fluids*, doi:10.1016/j.compfluid.2016.03.032, **141**, 82-89 (2016).

[198] - M. T. Nguyen, J. M. Allain, H. Gharbi, C. Desceliers, C. Soize, Experimental multiscale measurements for the mechanical identification of a cortical bone by digital image correlation, *Journal of The Mechanical Behavior of Biomedical Materials*, doi:10.1016/j.jmbbm.2016.06.011, **63**, 125-133 (2016).

[197] - R. Murthy, B.-K. Choi, X.Q. Wang, M.C. Sipperley, M.P. Mignolet, C. Soize, Maximum entropy modeling of discrete uncertain properties with application to friction, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech. 2015.10.003, **44**, 128-137 (2016).

[196] - N. Lestoille, C. Soize, C. Funfschilling, Stochastic prediction of high-speed train dynamics to long-time evolution of track irregularities, *Mechanics Research Communications*, doi:10.1016/j.mechrescom.2016.05.007, **75**, 29-39 (2016).

[195] - N. Lestoille, C. Soize, C. Funfschilling, Sensitivity of train stochastic dynamics to long-time evolution of track irregularities, *Vehicle System Dynamics*, doi:10.1080/00423114.2016.1142095, **54**(5), 545-567 (2016).

[194] - T.T. Le, J. Guilleminot, C. Soize, Stochastic continuum modeling of random interphases from atomistic simulations. Application to a polymer nanocomposite, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma .2015.10.006, **303**, 430-449 (2016).

[193] - E. Cataldo, C. Soize, Jitter generation in voice signals produced by a two-mass stochastic mechanical model, *Biomedical Signal Processing and Control*, doi: 10.1016/j.bspc.2016.02.003, **27**, 87–95 (2016).

[192] - R. Capillon, C. Desceliers, C. Soize, Uncertainty quantification in computational linear structural dynamics for viscoelastic composite structures *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2016. 03.012, **305**, 154-172 (2016).

**2015**

[191] - C. Soize, Polynomial chaos expansion of a multimodal random vector, *SIAM-ASA Journal on Uncertainty Quantification*, doi:10.1137/140968495, **3**(1), 34–60 (2015).

[190] - G. Perrin, D. Duhamel, C. Soize, C. Funfschilling, Quantification of the influence of the track geometry variability on the train dynamics, *Mechanical System and Signal processing*, doi:10.1016/j.ymssp.2015.01.004, **60-61**(), 945-957 (2015).

[189] - R. Ohayon, C. Soize, Vibration of structures containing compressible liquids with surface tension and sloshing effects. Reduced-order model, *Computational Mechanics*, doi:10.1007/s00466-014-1091-4, **55**(6), 1071-1078 (2015).

[188] - M. T. Nguyen, C. Desceliers, C. Soize, J. M. Allain, H. Gharbi, Multiscale identification of the random elasticity field at mesoscale of a heterogeneous microstructure using multiscale experimental observations, *International Journal for Multiscale Computational Engineering*, doi:10.1615/IntJMultCompEng.2015011435, **13**(4), 281-295 (2015).

[187] - S. Naili, V.-H. Nguyen, M.-B. Vu, C. Desceliers, C. Soize, Modeling of transient wave propagation in a heterogeneous solid layer coupled with fluid: application to long bones, *Journal of the Acoustical Society of America*, doi:10.1121/1.4906838, **137**(2), 668-678 (2015).

[186] - R. Lima, C. Soize, R. Sampaio, Robust design optimization with an uncertain model of a nonlinear vibro-impact electro-mechanical system, *Communication in Nonlinear Science and Numerical Simulation*, doi:10.1016/j.cnsns. 2014.11.014, **23**(1-3), 263-273 (2015).

[185] - R. Ghanem, C. Soize, Remarks on stochastic properties of materials through finite deformations, *International Journal for Multiscale Computational Engineering*, doi:10.1615/IntJMultCompEng.2015013959, **13**(4), 367-374 (2015).

[184] - O. Ezvan, A. Batou, C. Soize, Multilevel reduced-order computational model in structural dynamics for the low- and medium-frequency ranges, *Computer and Structures*, doi: 10.1016/j.compstruc.2015.08.007, **160**, 111-125 (2015).

[183] - A. Cunha Jr, C. Soize, R. Sampaio, Computational modeling of the nonlinear stochastic dynamics of horizontal drillstrings, *Computational Mechanics*, doi:10.1007/s00466-015-1206-6, **56**(5), 849-878 (2015).

[182] - E. Capiez-Lernout, C. Soize, M. Mbaye, Mistuning analysis and uncertainty quantification of an industrial bladed disk with geometrical nonlinearity, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2015.07.006, **356**, 124-143 (2015).

[181] - A. Batou, C. Soize, Generation of accelerograms compatible with design specifications using information theory, *Bulletin of Earthquake Engineering*, doi:10.1007/s10518-013-9547-z, **12**(2), 769-794 (2015).

**2014**

[180] - T.G. Ritto, C. Soize, F.A. Rochinha, R. Sampaio, Dynamic stability of a pipe conveying fluid with an uncertain computational model, *Journal of Fluid and Structures*, doi:10.1016/j.jfluidstructs.2014.05.003, **49**, 412-426 (2014).

[179] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, A posteriori error and optimal reduced basis for stochastic processes defined by a set of realizations, *SIAM-ASA Journal on Uncertainty Quantification*, doi:10.1137/130905095, **2**, 745-762 (2014).

[178] - R. Ohayon, C. Soize, R. Sampaio, Variational-based reduced-order model in dynamic substructuring of coupled structures through a dissipative physical interface: Recent advances, *Archives of Computational Methods in Engineering*, doi:10.1007/s11831-014-9107-y, **21**(3), 321-329 (2014).

[177] - R. Ohayon, C. Soize, Clarification about component mode synthesis methods for substructures with physical flexible interfaces, *International Journal of Aeronautical and Space Sciences*, doi:10.5139/IJASS.2014.15.2.113, **15**(2), 113-122 (2014).

[176] - A. Nouy, C. Soize, Random fields representations for stochastic elliptic boundary value problems and statistical inverse problems, *European Journal of Applied Mathematics*, doi:10.1017/S0956792514000072, **25**(3), 339-373 (2014).

[175] - Y. Le Guennec, R. Cottereau, D. Clouteau, C. Soize, A coupling method for stochastic continuum models at different scales, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech.2013.10.005, **37**, 138-147 (2014).

[174] - J. Guilleminot, C. Soize, Itô SDE-based generator for a class of non-gaussian vector-valued random fields in uncertainty quantification, *SIAM Journal on Scientific Computing*, doi:10.1137/130948586, **36**(6), A2763–A2786 (2014).

[173] - E. Capiez-Lernout, C. Soize, M. Mignolet, Post-buckling nonlinear static and dynamical analyses of uncertain cylindrical shells and experimental validation, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma .2013.12.011, **271**(1), 210-230 (2014).

[172] - A. Batou, C. Soize, S. Audebert, Model identification in computational stochastic dynamics using experimental modal data, *Mechanical Systems and Signal Processing*, doi:10.1016/j.ymssp.2014.05.010, **50-51**, 307-322 (2014).

**2013**

[171] - C. Soize, Bayesian posteriors of uncertainty quantification in computational structural dynamics for low- and medium-frequency ranges, *Computers and Structures*, doi:10.1016/j.compstruc.2013.03.020, **126**(), 41-55 (2013).

[170] - C. Soize, Stochastic modeling of uncertainties in computational structural dynamics - Recent theoretical advances, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2011.10.010, **332**(10), 2379-2395 (2013).

[169] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Track irregularities stochastic modeling, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech.2013.08.006, **34**, 123-130 (2013).

[168] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Karhunen-Loève expansion revisited for vector-valued random fields: scaling, errors and optimal basis, *Journal of Computational Physics*, doi:10.1016/j.jcp.2013.02.036, **242**(1), 607-622 (2013).

[167] - M. P. Mignolet, C. Soize, J. Avalos, Nonparametric stochastic modeling of structures with uncertain boundary conditions / coupling between substructures, *AIAA Journal*, doi:10.2514/1.J051555, **51**(6), 1296-1308 (2013).

[166] - M. Mbaye, C. Soize, J.-P. Ousty, E.Capiez-Lernout, Robust analysis of design in vibration of turbomachines, *ASME Journal of Turbomachinery*, doi:10.1115/1.4007442, **135**(2), 021008-1-8 (2013).

[165] - J. Guilleminot, T. T. Le, C. Soize, Stochastic framework for modeling the linear apparent behavior of complex materials: application to random porous materials with interphases, *Acta Mechanica Sinica*, doi:10.1007/s10409-013-0101-7, **29**(6), 773-782 (2013).

[164] - J. Guilleminot, C. Soize, Stochastic model and generator for random fields with symmetry properties: application to the mesoscopic modeling of elastic random media, *Multiscale Modeling and Simulation (A SIAM Interdisciplinary Journal)*, doi:10.1137/120898346, **11**(3), 840-870 (2013).

[163] - J. Guilleminot, C. Soize, On the statistical dependence for the components of random elasticity tensors exhibiting material symmetry properties, *Journal of Elasticity*, doi 10.1007/s10659-012-9396-z, **111**(2), 109-130 (2013).

[162] - T.T. Do, C. Soize, J.-V. Heck, Computational nonlinear thermomechanical model of large light partition walls based on experimental analyzes and probabilistic models, *Computer-Aided Civil and Infrastructure Engineering (CACAIE)*, doi:10.1111/j.1467-8667.2012.00782.x, **28**(2), 81-97 (2013). smallskip

[161] - C. Desceliers, C. Soize, M. Zarroug, Computational strategy for the crash design analysis using an uncertain computational mechanical model, *Computational Mechanics*, doi:10.1007/s00466-012-0822-7, **52**(2), 453-462 (2013).

[160] - C. Desceliers, C. Soize, H. Yanez-Godoy, E.Houdu, O. Poupard, Robustness analysis of an uncertain computational model to predict well integrity for geologic CO2 sequestration, *Computational Geosciences*, doi:10.1007/s10596-012-9332-0, **17**(2), 307-323 (2013).

[159] - A. Clément, C. Soize, J. Yvonnet, Uncertainty quantification in computational stochastic multiscale analysis of nonlinear elastic materials, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2012.10.016, **254**(), 61-82 (2013).

[158] - E. Cataldo, C. Soize, R. Sampaio, Uncertainty quantification of voice signal production mechanical model and experimental updating, *Mechanical Systems and Signal Processing*, doi:10.1016/j.ymssp.2013.06.036, **40**(2), 718-726 (2013).

[157] - A. Batou, C. Soize, Calculation of Lagrange multipliers in the construction of maximum entropy distributions in high stochastic dimension, *SIAM-ASA Journal on Uncertainty Quantification*, doi:10.1137/120901386, **1**(1), 431-451 (2013).

[156] - A. Batou, C. Soize, Stochastic modeling and identification of an uncertain computational dynamical model with random fields properties and model uncertainties, *Archive of Applied Mechanics*, doi:10.1007/s00419-012-0720-7, **83**(6), 831-848 (2013).

[155] - A. Batou, C. Soize, N. Brie, Reduced-order computational model in nonlinear structural dynamics for structures having numerous local elastic modes in the low-frequency range. Application to fuel assemblies, *Nuclear Engineering and Design*, doi:10.1016/j.nucengdes.2013.04.039, **262**, 276–284 (2013).

[154] - A. Batou, C. Soize, Uncertainty quantification in low-frequency dynamics of complex beam-like structures having a high-modal density, *International Journal for Uncertainty Quantification*, doi:10.1615/Int.J.UncertaintyQuantification.2012005286, **3**(6), 475-485 (2013).

[153] - M. Arnst, C. Soize, R. Ghanem, Hybrid sampling/spectral method for solving stochastic coupled problems, *SIAM-ASA Journal on Uncertainty Quantification*, doi:10.1137/120894403, **1**(1), 218–243 (2013).

[152] - A. Arnoux, C. Soize, A. Batou, L. Gagliardini, Reduced-order computational model for low-frequency dynamics of automobiles, *Advances in Mechanical Engineering*, doi:10.1155/2013/310362, Volume 2013 (Article ID 310362), 1-12 (2013).

[151] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Stochastic reduced order computational model of structures having numerous local elastic modes in low frequency dynamics, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2013.02.019, **332**(16), 3667-3680 (2013).

**2012**

[150] - C. Soize, I.E. Poloskov, Time-domain formulation in computational dynamics for linear viscoelastic media with model uncertainties and stochastic excitation, *Computers and Mathematics with Applications*, doi:10.1016/j.camwa.2012.09.010, **64**(11), 3594-3612 (2012).

[149] - C. Soize, Professor Gerhart I. Schueller In Memoriam, *Structural Safety*, doi:10.1016/S0167-4730(12)00061-6, **39**, III-III (2012).

[148] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Identification of polynomial chaos representations in high dimension from a set of realizations, *SIAM Journal on Scientific Computing*, doi:10.1137/11084950X, **34**(6), A2917-A2945 (2012).

[147] - R. Ohayon, C. Soize, Advanced computational dissipative structural acoustics and fluid-structure interaction in low- and medium-frequency domains. Reduced-order models and uncertainty quantification, *International Journal of Aeronautical and Space Sciences*, doi:10.5139/IJASS.2012.13.2.127, **13**(2), 127-153 (2012).

[146] - J. Guilleminot, C. Soize, R. Ghanem, Stochastic representation for anisotropic permeability tensor random fields, *International Journal for Numerical and Analytical Methods in Geomechanics*, doi:10.1002 / nag.1081, **36**(13), 1592-1608 (2012).

[145] - J. Guilleminot, C. Soize, Generalized stochastic approach for constitutive equation in linear elasticity: A random matrix model, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.3338, **90**(5),613-635 (2012).

[144] - J. Guilleminot, C. Soize, Probabilistic modeling of apparent tensors in elastostatics: a MaxEnt approach under material symmetry and stochastic boundedness constraints, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech.2011.07.004, **28**(SI),118-124 (2012).

[143] - J. Guilleminot, C. Soize, Stochastic modeling of anisotropy in multiscale analysis of heterogeneous materials: a comprehensive overview on random matrix approaches, *Mechanics of Materials*, doi:10.1016/j.mechmat.2011.06.003, **44**, 35-46 (2012).

[142] - C. Desceliers, C. Soize, S. Naili, G. Haiat, Probabilistic model of the human cortical bone with mechanical alterations in ultrasonic range, *Mechanical Systems and Signal Processing*, doi:10.1016/j.ymssp.2012.03.008, **32**, 170–177 (2012).

[141] - A. Clément, C. Soize, J. Yvonnet, Computational nonlinear stochastic homogenization using a non-concurrent multiscale approach for hyperelastic heterogenous microstructures analysis, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.4293, **91**(8), 799–824 (2012).

[140] - E. Capiez-Lernout, C. Soize, M. Mignolet, Computational stochastic statics of an uncertain curved structure with geometrical nonlinearity in three-dimensional elasticity, *Computational Mechanics*, doi:10.1007/s00466-011-0629-y, **49**(1), 87-97 (2012).

[139] - A. Batou, C. Soize, Rigid multibody system dynamics with uncertain rigid bodies, *Multibody System Dynamics*, doi:10.1007/s11044-011-9279-2, **27**(3), 285-319 (2012).

**2011**

[138] - P.D. Spanos, I.A. Kougioumtzoglou, C. Soize, On the determination of the power spectrum of randomly excited oscillators via stochastic averaging: An alternative perspective, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech.2010.06.001, **26**(1), 10-15 (2011).

[137] - C. Soize, A. Batou, Stochastic reduced-order model in low-frequency dynamics in presence of numerous local elastic modes, *Journal of Applied Mechanics - Transactions of the ASME*, doi:10.1115/1.4002593, **78**(6), 061003-1 to 9 (2011).

[136] - C. Soize, A computational inverse method for identification of non-Gaussian random fields using the Bayesian approach in very high dimension, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2011. 07.005, **200**(45-46), 3083-3099 (2011).

[135] - M. Kassem, C. Soize, L. Gagliardini, Structural partitioning of complex structures in the medium-frequency range. An application to an automotive vehicle, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2010.09.008, **330**(5), 937-946 (2011).

[134] - G. Haiat, S. Naili, M.-B. Vu, C. Desceliers, C. Soize, Equivalent contributing depth investigated by a lateral wave with axial transmission in viscoelastic cortical bone, *J. Acoust. Soc. Am.*, doi:10.1121/1.3554719, **129**(4), EL114-EL120 (2011).

[133] - J. Guilleminot, C. Soize, Non-Gaussian positive-definite matrix-valued random fields with constrained eigenvalues: application to random elasticity tensors with uncertain material symmetries, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.3212, **88**(11), 1128-1151 (2011).

[132] - J. Guilleminot, A. Noshadravan, C. Soize, R. Ghanem, A probabilistic model for bounded elasticity tensor random fields with application to polycrystalline microstructures, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2011.01.016, **200**(17-20), 1637-1648 (2011).

[131] - A. Batou, C. Soize, M. Corus, Experimental identification of an uncertain computational dynamical model representing a family of structures, *Computer and Structures*, doi:10.1016/j.compstruc.2011.03.004, **89**(13-14), 1440-1448 (2011).

**2010**

[130] - C. Soize, C. Desceliers, Computational aspects for constructing realizations of polynomial chaos in high dimension, *SIAM Journal On Scientific Computing*, doi:10.1137/100787830, **32**(5), 2820-2831 (2010).

[129] - C. Soize, Identification of high-dimension polynomial chaos expansions with random coefficients for non-Gaussian tensor-valued random fields using partial and limited experimental data, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2010.03.013, **199**(33-36), 2150-2164 (2010).

[128] - C. Soize, Information theory for generation of accelerograms associated with Shock response Spectra, *Computer-Aided Civil and Infrastructure Engineering*, doi:10.1111/j.1467-8667.2009.00643.x, **25**(5), 334-347 (2010).

[127] - C. Soize, Some aspects of probabilistic modeling, identification and propagation of uncertainties in computational mechanics, *European Journal of Computational Mechanics*, doi:10.3166/ejcm.19.25-40, **19**(1-2-3), 25-40 (2010).

[126] - C. Soize, Generalized Probabilistic approach of uncertainties in computational dynamics using random matrices and polynomial chaos decompositions, *International Journal for Numerical Methods in Engineering*, doi:10.1002/-nme.2712, **81**(8), 939-970 (2010).

[125] - T.G. Ritto, C. Soize, R. Sampaio, Robust optimization of the rate of penetration of a drill-string using a stochastic nonlinear dynamical model, *Computational Mechanics*, doi:10.1007/s00466-009-0462-8, **45**(5), 415-427 (2010).

[124] - T. Ritto, C. Soize, R. Sampaio, Stochastic dynamics of a drill-string with uncertain weight-on-hook, *Journal of the Brazilian Society of Mechanical Sciences and Engineering (JBSMSE)*, doi:10.1590/S1678-58782010000300008, **32**(3), 250-258 (2010).

[123] - T. Ritto, C. Soize, R. Sampaio, Probabilistic model identification of the bit-rock-interaction-model uncertainties in nonlinear dynamics of a drill-string, *Mechanics Research Communications*, doi:10.1016/j.mechrescom.2010.07. 004, **37**(6), 584-589 (2010).

[122] - S. Naili, M.-B. Vu, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, G. Haiat, Influence of viscoelastic and viscous absorption on ultrasonic wave propagation in cortical bone: application to axial transmission, *J. Acoust. Soc. Am.*, doi:10.1121/1.3353091, **127**(4), 2622-2634 (2010).

[121] - M. Mbaye, C. Soize, J.-P. Ousty, A reduced-order model of detuned cyclic dynamical systems with geometric modifications using a basis of cyclic modes, *ASME Journal of Engineering for Gas Turbines and Power*, doi:10.1115/1.4000805, **132**(11), 112502-1-9 (2010).

[120] - T. Leissing, C. Soize, P. Jean, J. Defrance, Computational model for long-range non-linear propagation over urban cities, *Acta Acustica united with Acustica (AAUWA)*, doi:10.3813/AAA.918347, **96**(5), 884-898 (2010).

[119] - J. Guilleminot, C. Soize, A stochastic model for elasticity tensors with uncertain material symmetries, *International Journal of Solids and Structures*, doi:10.1016/j.ijsolstr.2010.07.013, **47**(22-23), 3121-3130 (2010).

[118] - C. Fernandez, C. Soize, L. Gagliardini, Sound-insulation layer modelling in car computational vibroacoustics in the medium-frequency range, *Acta Acustica United with Acustica (AAUWA)*, doi:10.3813/AAA.918296 **96**(3), 437-444 (2010).

[117] - M. Arnst, R. Ghanem, C. Soize, Identification of Bayesian posteriors for coefficients of chaos expansions, *Journal of Computational Physics*, doi:10.1016/j.jcp.2009.12.033, **229**(9), 3134-3154 (2010)

**2009**

[116] - C. Soize, R. Ghanem, Reduced chaos decomposition with random coefficients of vector-valued random variables and random fields, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2008.12.035, **198**(21-26), 1926-1934 (2009).

[115] - C. Soize, Nonparametric probabilistic approach of uncertainties for elliptic boundary value problem, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.2563, **80**(6-7), 673-688 (2009).

[114] - S. Sakji, C. Soize, J.-V. Heck, Computational stochastic heat transfer with model uncertainties in a plasterboard submitted to fire load and experimental validation, *Fire and Materials Journal*, doi:10.1002/fam.982, **33**(3), 109-127 (2009).

[113] - T.G. Ritto, C. Soize, R. Sampaio, Nonlinear dynamics of a drill-string with uncertain model of the bit-rock interaction, *International Journal of Non-Linear Mechanics*, doi:10.1016/j.ijnonlinmec.2009.06.003, **44**(8), 865-876 (2009).

[112] - T. Leissing, P. Jean, J. Defrance, C. Soize, Nonlinear parabolic equation model for finite-amplitude sound propagation over porous ground layers, *J. Acoust. Soc. Am.*, doi:10.1121/1.3158937, **126**(2), 572-581(2009).

[111] - M. Kassem, C. Soize, L. Gagliardini, Energy density field approach for low- and medium-frequency vibroacoustic analysis of complex structures using a stochastic computational model, doi:10.1016/j.jsv.2009.01.014, *Journal of Sound and Vibration*, **323**(3-5), 849-863 (2009).

[110] - G. Haiat, S. Naili, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, Influence of a gradient of material properties on ultrasonic wave propagation in cortical bone: application to axial transmission, *J. Acoust. Soc. Am.*, doi:10.1121/1.3117445, **125**(6), 4043-4052 (2009).

[109] - J. Guilleminot, C. Soize, D. Kondo, Mesoscale probabilistic models for the elasticity tensor of fiber reinforced composites: experimental identification and numerical aspects, *Mechanics of Materials*, doi:10.1016/j.mechmat.2009. 08.004, **41**(12), 1309-1322 (2009).

[108] - C. Fernandez, C. Soize, L. Gagliardini, Fuzzy structure theory modeling of sound-insulation layers in complex vibroacoustic uncertain systems - Theory and experimental validation, *J. Acoust. Soc. Am.*, doi:10.1121/1.3035827, **125**(1), 138-153 (2009).

[107] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Determination of the random anisotropic elasticity layer using transient wave propagation in a fluid-solid multilayer: Model and experiments, doi:10.1121/1.3087428, *J. Acoust. Soc. Am.*, **125**(4), 2027-2034 (2009).

[106] - E. Cataldo, C. Soize, R. Sampaio, C. Desceliers, Probabilistic modeling of a nonlinear dynamical system used for producing voice, *Computational Mechanics*, doi:10.1007/s00466-008-0304-0, **43**(2), 265-275 (2009).

[105] - A. Batou, C. Soize, Experimental identification of turbulent fluid forces applied to fuel assemblies using an uncertain model and fretting-wear estimation, *Mechanical Systems and Signal Processing*, doi:10.1016/j.ymssp.2009.03.018, **23**(7), 2141-2153 (2009).

[104] - A. Batou, C. Soize, Identification of stochastic loads applied to a non-linear dynamical system using an uncertain computational model and experimental responses, *Computational Mechanics*, doi:10.1007/s00466-008-0330-y, **43**(4), 559-571 (2009).

**2008**

[103] - C. Soize, E. Capiez-Lernout, R. Ohayon, Robust updating of uncertain computational models using experimental modal analysis, *AIAA Journal*, doi:10.2514/1.38115, **46**(11), 2955-2965 (2008).

[102] - C. Soize, E. Capiez-Lernout, J.-F. Durand, C. Fernandez, L. Gagliardini, Probabilistic model identification of uncertainties in computational models for dynamical systems and experimental validation, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2008.04.007, **198**(1), 150-163, (2008).

[101] - C. Soize, A. Batou, Identification of stochastic loads applied to a nonlinear dynamical system using an uncertain computational model, *Mathematical Problems in Engineering*, doi:10.1155/2008/181548, Volume 2008, Article ID 181548, 1-16 (2008).

[100] - C. Soize, Construction of probability distributions in high dimension using the maximum entropy principle. Applications to stochastic processes, random fields and random matrices, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.2385, **76**(10), 1583-1611 (2008).

[99] - C. Soize, Tensor-valued random fields for meso-scale stochastic model of anisotropic elastic microstructure and probabilistic analysis of representative volume element size, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech.2007.12.019, **23**(2-3), 307-323 (2008).

[98] - S. Sakji, C. Soize, J.-V. Heck, Probabilistic uncertainty modeling for thermomechanical analysis of plasterboard submitted to fire load, *Journal of Structural Engineering, ASCE*, doi:10.1061/(ASCE)0733-9445(2008)134:10(1611), **134**(10), 1611-1618 (2008).

[97] - M. Pellissetti, E. Capiez-Lernout, H. Pradlwarter, C. Soize, G.I. Schueller, Reliability analysis of a satellite structure with a parametric and a non-parametric probabilistic model, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2008.08.004, **198**(2), 344-357 (2008).

[96] - M. P. Mignolet and C. Soize, Nonparametric stochastic modeling of linear systems with prescribed variance of several natural frequencies, *Probabilistic Engineering Mechanics*, doi:10.1016/j.probengmech.2007.12.027, **23**(2-3), 267-278 (2008).

[95] - M. P. Mignolet and C. Soize, Stochastic reduced order models for uncertain nonlinear dynamical systems, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2008.03.032, **197**(45-48), 3951-3963 (2008).

[94] - J. Guilleminot, C. Soize, D. Kondo, C. Binetruy, Theoretical framework and experimental procedure for modelling volume fraction stochastic fluctuations in fiber reinforced composites, *International Journal of Solid and Structures*, doi:10.1016/j.ijsolstr.2008.06.002, **45**(21), 5567-5583 (2008).

[93] - J. Guilleminot, C. Soize, D. Kondo, C. Binetruy, Stochastic model identification of fibre-reinforced composites at the mesoscale, *JEC Composites Magazine*, **45**(45), 73-74 (2008).

[92] - J.-F. Durand, C. Soize, L. Gagliardini, Structural-acoustic modeling of automotive vehicles in presence of uncertainties and experimental identification and validation, *J. Acoust. Soc. Am.*, doi:10.1121/1.2953316, **124**(3), 1513-1525 (2008).

[91] - C. Desceliers, C. Soize, Q. Grimal, G. Haiat, S. Naili, A time domain method to solve transient elastic wave propagation in a multilayer medium with a hybrid spectral-finite element space approximation, *Journal of Wave Motion*, doi:10.1016/j.wavemoti.2007.09.001, **45**(4),383-399 (2008).

[90] - R. Cottereau, D. Clouteau, C. Soize, Parametric and nonparametric models of the impedance matrix of a random medium, *European Journal of Computational Mechanics*, doi: 10.3166/remn.17.881-892, **17**(5-7) 881-892 (2008).

[89] - R. Cottereau, D. Clouteau, C. Soize, Probabilistic impedance of foundation: impact of the seismic design on uncertain soils, *Earthquake Engineering and Structural Dynamics*, doi:10.1002/eqe.794, **37**(6), 899-918 (2008).

[88] - E. Cataldo, R. Sampaio, J. Lucero, C. Soize, Modeling random uncertainties in voice production using a parametric approach, *Mechanics Research Communications*, doi: 10.1016/j.mechrescom.2008.05.006, **35**(7),454-459 (2008).

[87] - E. Capiez-Lernout, C. Soize, Robust updating of uncertain damping models in structural dynamics for low- and medium-frequency ranges, *Mechanical Systems and Signal Processing*, doi:10.1016/j.ymssp.2008.02.005, **22**(8),1774-1792 (2008).

[86] - E. Capiez-Lernout, C. Soize, Robust design optimization in computational mechanics, *Journal of Applied Mechanics - Transactions of the ASME*, doi:10.1115/1.2775493, **75**(2), 1-11 (2008).

[85] - E. Capiez-Lernout, C. Soize Design optimization with an uncertain vibroacoustic model, *Journal of Vibration and Acoustics*, doi:10.1115/1.2827988, **130**(2), 1-8 (2008).

**2007**

[84] - R. Sampaio, C. Soize, On measures of non-linearity effects for uncertain dynamical systems - Application to a vibro-impact system, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2007.01.033, **303**(3-5), 659-674 (2007).

[83] - R. Sampaio, C. Soize, Remarks on the efficiency of POD for model reduction in nonlinear dynamics of continuous elastic systems, *International Journal for Numerical Methods in Engineering*, doi: 10.1002/nme.1991, **72**(1), 22-45 (2007).

[82] - C. Desceliers, C. Soize, R. Ghanem, Identification of chaos representations of elastic properties of random media using experimental vibration tests, *Computational Mechanics*, doi:10.1007/s00466-006-0072-7, **39**(6), 831-838 (2007).

[81] - R. Cottereau, D. Clouteau, C. Soize, Construction of a probabilistic model for impedance matrices, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2006.12.001, **196**(17-20), 2252-2268 (2007).

**2006**

[80] - C. Soize, Non Gaussian positive-definite matrix-valued random fields for elliptic stochastic partial differential operators, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2004.12.014, **195**(1-3), 26-64 (2006).

[79] - K. Macocco, Q. Grimal, S. Naili, C. Soize, Elastoacoustic model with uncertain mechanical properties for ultrasonic wave velocity prediction: Application to cortical bone evaluation, *J. Acoust. Soc. Am.*, doi:10.1121/1.2146110, **119**(2), 729–740 (2006).

[78] - J. Duchereau, C. Soize, Transient dynamics in structures with nonhomogeneous uncertainties induced by complex joints, *Mechanical Systems and Signal Processing*, **20**(4), 854-867 (2006).

[77] - C. Desceliers, R. Ghanem, C. Soize, Maximum likelihood estimation of stochastic chaos representations from experimental data, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.1576, **66**(6), 978-1001 (2006).

[76] - R. Cottereau, D. Clouteau, C. Soize, S. Cambier, Probabilistic nonparametric model of impedance matrices. Application to the seismic design of a structure, European Journal of Computational Mechanics, **15**(1-2-3), 131-142 (2006).

[75] - C. Chen, D. Duhamel, C. Soize, Probabilistic approach for model and data uncertainties and its experimental identification in structural dynamics: Case of composite sandwich panels, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2005 .10.013, **294**(1-2), 64–81 (2006).

[74] - E. Capiez-Lernout, M. Pellissetti, H. Pradlwarter, G.I. Schueller, C. Soize, Data and model uncertainties in complex aerospace engineering systems, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2006.01.056, **295**(3-5), 923-938 (2006).

**2005**


[73] - C. Soize, A comprehensive overview of a non-parametric probabilistic approach of model uncertainties for predictive models in structural dynamics, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2005.07.009, **288**(3), 623-652 (2005).

[72] - C. Soize, Random matrix theory for modeling uncertainties in computational mechanics, *Computer Methods in Applied Mechanics and Engineering*, doi:10.1016/j.cma.2004.06.038, **194**(12-16), 1333-1366 (2005).

[71] - K. Macocco, Q. Grimal, S. Naili and C. Soize, Probabilistic modelling of an ultrasonic setup: calculation of the dispersion on wave speed measurements, *Comptes Rendus Mécanique*, doi:10.1016/j.crme.2005.06.005, **333**(7), 565-573 (2005).

[70] - C. Desceliers, R. Ghanem and C. Soize, Polynomial chaos representation of a stochastic preconditioner, *International Journal for Numerical Methods in Engineering*, doi:10.1002/nme.1382, **64**(5), 618-634 (2005).

[69] - L. Chevalier, S. Cloupet, C. Soize, Probabilistic model for random uncertainties in steady state rolling contact, *Wear Journal*, doi:10.1016/j.wear.2004.11.012, **258**(10), 1543-1554 (2005).

[68] - E.Capiez-Lernout, C. Soize, J.-P. Lombard, C. Dupont and E. Seinturier, Blade manufacturing tolerances definition for a mistuned industrial bladed disk, *Journal of Engineering for Gas Turbines and Power*, doi:10.1115/1.1850497, **127**(3), 621-628 (2005).


**2004**


[67] - C. Soize, R. Ghanem, Physical systems with random uncertainties: Chaos representation with arbitrary probability measure, *SIAM Journal on Scientific Computing*, doi:10.1137/S1064827503424505, **26**(2), 395-410 (2004).

[66] - C. Soize, Random-field model for the elasticity tensor of anisotropic random media, *Comptes Rendus Mécanique*, doi:10.1016/j.crme.2004.09.008, **332**, 1007-1012 (2004).

[65] - B. Faverjon, C. Soize, Equivalent acoustic impedance model : Analytical approximation. Part II, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2003.08.054, **276**, 593-613(2004).

[64] - B. Faverjon, C. Soize, Equivalent acoustic impedance model : Experiments and semi-physical model. Part I, *Journal of Sound and Vibration*, doi:10.1016/j.jsv.2003.08.053, **276**, 571-592 (2004).

[63] - C. Desceliers, C. Soize, S. Cambier, Nonparametric-parametric model for random uncertainties in nonlinear structural dynamics - Application to earthquake engineering, *Earthquake Engineering and Structural Dynamics*, doi:10.1002/eqe.352, **33**(3), 315-327 (2004).

[62] - C. Desceliers, C. Soize, Nonlinear viscoelastodynamic equations of three-dimensional rotating structures in finite displacement and finite element discretization, *International Journal of Non-linear Mechanics*, doi:10.1016/S0020-7462(02)00191-9, **39**(3), 343-368 (2004).

[61] - H. Chebli, C. Soize, Experimental validation of a nonparametric probabilistic model of non homogeneous uncertainties for dynamical systems, *J. Acoust. Soc. Am.*, doi:10.1121/1.1639335, **115**(2) 697-705 (2004).

[60] - E. Capiez-Lernout, C. Soize, Nonparametric modeling of random uncertainties for dynamic response of mistuned bladed disks, *Journal of Engineering for Gas Turbines and Power*, doi:10.1115/1.1760527, **126**(3), 600-618 (2004).


**2003**


[59] - C. Soize, S. Mziou, Dynamic substructuring in the medium-frequency range, *AIAA Journal*, doi:10.2514/2.2052, **41**(6), 1113-1118 (2003).

[58] - C. Soize, H. Chebli, Random uncertainties model in dynamic substructuring using a nonparametric probabilistic model, *Journal of Engineering Mechanics*, doi:10.1061/(ASCE)0733-9399(2003)129:4(449), **129**(4), 449-457 (2003).

[57] - C. Soize, Random matrix theory and non-parametric model of random uncertainties in vibration analysis, *Journal of Sound and Vibration*, doi:10.1016/S0022-460X(02)01170-7, **263**(4), 893-916 (2003).

[56] - C. Soize, Uncertain dynamical systems in the medium-frequency range, *Journal of Engineering Mechanics*, doi:10.1061/(ASCE)0733-9399(2003)129:9(1017), **129**(9), 1017-1027 (2003).

[55] - E. Capiez-Lernout, C. Soize, Modèle probabiliste des incertitudes en dynamique des structures pour le désaccordage des roues aubagées, *Mécanique et Industries*, doi: 10.1016/j.mecind.2003.07.015, **4**(5), 585-594 (2003).

**2002-2001**

[54] - B. Puig, F. Poirion, C. Soize, Non-Gaussian simulation using Hermite polynomial expansion: Convergences and algorithms, *Probabilistic Engineering Mechanics*, doi:10.1016/S0266-8920(02)00010-3, **17**(3), 253-264 (2002).

[53] - H. Chébli, C. Soize, Analyse vibratoire par sous-structuration dynamique avec modèle non paramétrique d'incertitudes aléatoires non homogènes, *Revue Européenne des Eléments Finis*, **11**, 233-246 (2002).

[52] - C. Soize, Nonlinear dynamical systems with nonparametric model of random uncertainties, *Uncertainties in Engineering Mechanics*, **1**(1), 1-38 (2001), e-journal from Resonance Publication.

[51] - C. Soize, Transient responses of dynamical systems with random uncertainties, *Probabilistic Engineering Mechanics*, doi:10.1016/S0266-8920(01)00026-1, **16**(4), 363-372 (2001).

[50] - C. Soize, Maximum entropy approach for modeling random uncertainties in transient elastodynamics, *J. Acoust. Soc. Am.*, doi:10.1121/1.1360716, **109**(5), 1979-1996 (2001).

[49] - C. Soize, Modélisation des incertitudes aléatoires en élastodynamique transitoire, Random uncertainties modeling in transient elastodynamics, *Comptes Rendus de l'Académie des Sciences - Séries IIB*, doi:10.1016/S1620-7742(01)01307-1, **329**(3), 225-230 (2001).

**2000-1998**

[48] - C. Soize, J.C. Michelucci, Structural shape parametric optimization for an internal structural-acoustic problem, *Aerospace Science and Technology*, doi:10.1016/S1270-9638(00)00135-8, **4**, 263-275 (2000).

[47] - C. Soize, K. Bjaoui, Estimation of the fuzzy structure parameters for continuous junctions, *J. Acoust. Soc. Am.*, doi:10.1121/1.428485, **107**(4), 2011-2020 (2000).

[46] - C. Soize, A nonparametric model of random uncertainties for reduced matrix models in structural dynamics, *Probabilistic Engineering Mechanics*, doi:10.1016/S0266-8920(99)00028-4, **15**(3), 277-294 (2000).

[45] - C. Soize, Reduced models for structures in the medium-frequency range coupled with internal acoustic cavities, *J. Acoust. Soc. Am.*, doi:10.1121/1.428190, **106**(6), 3362-3374 (1999).

[44] - R. Ohayon, C. Soize, Méthodes numériques avancées en vibroacoustique basses et moyennes fréquences, *Revue Européenne des Eléments Finis*, doi:10.1080/12506559.1999.10511399, **8**(5-6), 607–637 (1999).

[43] - C. Soize, Reduced models in the medium frequency range for general external structural-acoustics systems, *J. Acoust. Soc. Am.*, doi:10.1121/1.423052, **103**(6), 3393–3406 (1998).

[42] - C. Soize, Reduced models in the medium frequency range for general dissipative structural-dynamics systems, *European Journal of Mechanics - A/Solids*, doi:10.1016/S0997-7538(99)80027-8, **17**(4), 657–685 (1998).

[41] - C. Soize, Estimation of the fuzzy substructure model parameters using the mean power flow equation of the fuzzy structure, *Journal of Vibration and Acoustics*, doi:10.1115/1.2893818, **120**(1), 279–286 (1998).

**1997-1995**

[40] - C. Soize, O. Lefur, Modal identification of weakly nonlinear multidimensional dynamical systems using a stochastic linearization method with random coefficients, *Journal of Mechanical Systems and Signal Processing*, doi:10.1006/mssp.1996.0085, **11**(1), 37–49 (1997).

[39] - C. Soize, O. Lefur, Weakly nonlinear second-order dynamical systems identification using a random parameters linear model, *RBCM - Journal of the Brazilian Society of Mechanical Sciences*, **XIX**(2), 207–216 (1997).

[38] - R. Ohayon, R. Sampaio, C. Soize, Dynamic substructuring of damped structures using singular value decomposition, *Journal of Applied Mechanics - Transactions of the ASME*, doi:10.1115/1.2787306, **64**(2), 292–298 (1997).

[37] - C. Soize, A Strategy for prediction and active control in structural acoustics, *La Recherche Aerospatiale*, **3** 189–197 (1996).

[36] - C. Soize, Vibration damping in low-frequency range due to structural complexity. A Model based on the theory of fuzzy structures and model parameters estimation, *Computers and Structures*, doi:10.1016/0045-7949(95)00207-W,**58**(5), 901–915 (1996).

[35] - C. Soize, Stochastic linearization method with random parameters for SDOF nonlinear dynamical systems: Prediction and identification procedures, *Probabilistic Engineering Mechanics*, doi:10.1016/0266-8920(95)00011-M, **10**(3), 143–152 (1995).

[34] - C. Soize, Méthodes de prévision des vibrations et des bruits émis par les structures vibrantes et les machines, *Acoustique et Technique*, **1**, 19-27 (1995).

[33] - C. Soize, Coupling between an undamped linear acoustic fluid and a damped nonlinear structure – Statistical energy analysis considerations, *Journal of the Acoustical Society of America*, doi:10.1121/1.413692, **98**(1), 373–385 (1995).

**1994-1992**

[32] - C. Soize, Stationary response of multi-dimensional second-order dynamical systems with inertial non-linearity subjected to wide-band random external excitation, *Journal of Sound and Vibration*, doi:10.1006/jsvi.1994.1477, **178**(2), 177-200 (1994).

[31] - J.M. David, C. Soize, Prediction of the high-frequency behavior of coupled fluid structure systems by the SEA method and applications, pp. 55–77, in *Computational Methods for Fluid-Structure Interaction*, J.M. Crolet et R. Ohayon editors, Longman Scientific and Technical, Harlow, U.K., 1994.

[30] - C. Soize, A model and numerical method in the medium frequency range for vibroacoustic predictions using theory of structural fuzzy, *J. Acoust. Soc. Am.*, doi:10.1121/1.408186, **94**(2), Pt 1, 849–866 (1993).

[29] - J.J. Angélini, C. Soize, P. Soudais, Hybrid numerical method for harmonic 3D Maxwell equations: Scattering by a mixed conducting and inhomogeneous-anisotropic dielectric media, *IEEE Trans. on Antennas and Propagation*, doi:10.1109/8.210117, **41**(1), 66–76 (1993).

[28] - C. Soize, A. Desanti, J.M. David, Numerical methods in elastoacoustic for low and medium frequency ranges, *La Recherche Aérospatiale* (English edition), **5**, 25–44 (1992).

[27] - C. Soize, Strong coupling between inviscid fluid and boundary layer for airfoils with a sharp edge. II: 2D unsteady case for isolated airfoill and straight blade cascade, *La Recherche Aérospatiale* (English edition), **3**, 23–54 (1992).

[26] - J.J. Angélini, C. Soize, P. Soudais, Hybrid numerical method for solving the harmonic Maxwell equations: III - Iterative algorithm, code and validations, *La Recherche Aérospatiale* (English edition), **4**, 57–72 (1992).

[25] - J.J. Angélini, C. Soize, P. Soudais, Hybrid numerical method for solving the harmonic Maxwell equations: II - Construction of the numerical approximations, *La Recherche Aérospatiale* (English edition), **4**, 45–55 (1992).

[24] - J.J. Angélini, C. Soize, P. Soudais, Hybrid numerical method for solving the harmonic Maxwell equations: I - Mathematical formulation, *La Recherche Aérospatiale* (English edition), **4**, 27–43 (1992).

**1991-1987**

[23] - C. Soize, Exact stationary response of multi-dimensional nonlinear Hamiltonian dynamical systems under parametric and stochastic excitations, *Journal of Sound and Vibration*, doi:10.1016/0022-460X(91)90908-3, **149**(1), 1–24 (1991).

[22] - C. Soize, J.M. David, A. Desanti, Dynamic and acoustic response of coupled structure/dense fluid axisymmetric systems excited by a random wall pressure field, *La Recherche Aérospatiale* (English edition), **5**, 1–14 (1989).

[21] - F. Poirion, C. Soize, Numerical simulation of homogeneous and inhomogeneous Gaussian stochastic vector fields, *La Recherche Aérospatiale* (English edition), **1**, 41–61 (1989).

[20] - J.J. Angélini, C. Soize, New approach to small transonic perturbations - Finite element numerical solving method - Part II: Numerical applications, *La Recherche Aérospatiale* (English edition), **2**, 21–41 (1989).

[19] - J.J. Angélini, C. Soize, New approach to small transonic perturbations - Finite element numerical solving method - Part I: Numerical developments, *La Recherche Aérospatiale* (English edition), **2**, 1–20 (1989).

[18] - C. Soize, Steady state solution of Fokker-Planck equation in higher dimension, *Probabilistic Engineering Mechanics*, doi:10.1016/0266-8920(88)90012-4, **3**(4), 196-206 (1988).

[17] - F. Chabas, C. Soize, Modeling mechanical subsystems by boundary impedance in the finite element method, *La Recherche Aérospatiale* (English edition), **5**, 59–75 (1987).

[16] - J.J. Angélini, C. Soize, Strong coupling between inviscid fluid and boundary layer for airfoils with sharp leading edge. I - 2D Incompressible steady case, *La Recherche Aérospatiale* (English edition) , **4**, 19–36 (1987).

**1986-1982**

[15] - C. Soize, P.M. Hutin, A. Desanti, J.M. David, F. Chabas, Linear dynamic analysis of mechanical systems in the medium frequency range, *Computers and Structures*, doi:10.1016/0045-7949(86)90070-2, **23**(5), 605–637 (1986).

[14] - C. Soize, J.M. David and A. Desanti, Functional reduction of stochastic fields for studying stationary random vibrations, *La Recherche Aérospatiale* (English edition), **2**, 31–44 (1986).

[13] - C. Soize, Probabilistic structural modeling in linear dynamic analysis of complex mechanical systems, I - Theoretical elements, *La Recherche Aérospatiale*, (English edition), **5**, 23–48, (1986).

[12] - F. Chabas, C. Soize, Hydroelasticity of slender bodies in an unbounded fluid in the medium frequency range, *La Recherche Aérospatiale* (English edition), **4**, 39–51, (1986).

[11] - F. Chabas, A. Desanti, C. Soize, Probabilistic structural modeling in linear dynamical analysis of complex mechanical systems. II - Numerical analysis and applications, *La Recherche Aérospatiale* (English edition), **5**, 49–67, (1986).

[10] - G. Coupry, C. Soize, Hydroelasticity and the field radiated by a slender elastic body into an unbounded fluid, *Journal of Sound and Vibration*, doi:10.1016/0022-460X(84)90583-2, **96**(2), 261-273 (1984).

[9] - C. Soize, Medium frequency linear vibrations of anisotropic elastic structures, *La Recherche Aérospatiale* (English edition), **5**, 65–87 (1982).

[8] - C. Soize, Middle frequency linear vibrations of anisotropic elastic structures, *Comptes Rendus à l'Académie des Sciences de Paris - Série II*, **294**(15), 895–898 (1982).

**1981-1975**

[7] - C. Soize, Oscillators submitted to squared gaussian processes, *Journal of Mathematical Physics*, doi:10.1063/ 1.524356, **21**(10), 2500–2507, American Institute of Physics (1980).

[6] - C. Soize, Fatigue failure analysis under random loading [Cumul de fatigue sous sollicitation aléatoire], *Revue Construction Métallique*, CTICM, **16**(4), 3–22 (1979).

[5] - C. Soize, Gust loading factors with nonlinear pressure terms, *Journal of Structural Division - ASCE*, doi: 10.1061/JSDEAG.0004948, **104**(6), 991–1007 (1978).

[4] - C. Soize, Design of lattice structures subjected to gusty wind loads [Calcul des structures à barres soumises au vent aléatoire], *Revue Construction Métallique*, CTICM, **14**(1), 44–58 (1977).

[3] - C. Soize, Stochastic dynamics of slender structures subjected to random wind loading [Dynamique stochastique des structures élancées soumises aux charges de vent], *Revue Française de Mécanique*, **60**, 57–65 (1976).

[2] - C. Soize, Quadratic transformation of a Gaussian process and its application to stochastic dynamics [Transformation quadratique d'un processus Gaussien et application à la dynamique stochastique], *Journal de Mécanique*, **15**(5), 857–875 (1976).

[1] - C. Soize, Comments on stochastic dynamics of elastic structures [Sur la dynamique stochastique des structures élastiques], *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences - Série A*, **280**(25), 1765–1768 (1975).

### 7.5. Invited Lectures (Plenary, Semi-plenary, Keynote)

[22] - C. Soize (Plenary lecture), Probabilistic Learning on Manifolds (PLoM) for statistical surrogates of stochastic nano-to-macro systems with uncertainties, and updating from small and incomplete datasets, ICCM 2024, The 15th International Conference of Computational Methods, Virtual Conference, July 15-18, 2024.

[21] - C. Soize (Keynote lecture), Predictive statistical surrogate model constructed using constrained probabilistic learning from small datasets for under-observed nonlinear stochastic computational models, 17th U.S. National Congress on Computational Mechanics, USNCCM 2023, Albuquerque, New Mexico, July 23-27, 2023.

[20] - C. Soize (General lecture), High-dimension probabilistic learning inference constrained by a stochastic computational model and by target statistical moments in the framework of a small training dataset, 14th International Symposium on Continuum Models and Discrete Systems, CMDS 14, Paris, CNAM, France – 26-30 June 2023

[19] - C. Soize (Plenary lecture), A probabilistic learning on manifolds as a new tool in machine learning and data science with applications in computational mechanics, UNCECOMP 2019, 3nd International Conference on Uncertainty

Quantification in Computational Sciences and Engineering, and COMPDYN 2019, 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Crete, Greece, June 24-26, 2019.

[18] - C. Soize (Keynote lecture), Probabilistic learning on manifolds for the small-data challenge in Uncertainty Quantification, International Conference on Uncertainty Quantification and Optimization (UQOP), Conference organized by The European research and training network UTOPIAE, Sorbonne University, Paris, 18-20 March 2019.

[17] - C. Soize (Plenary lecture) in collaboration with R. Ghanem, Probabilistic learning on manifold for optimization under uncertainties, UNCECOMP 2017, 2nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering and COMPDYN 2017, 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Rhodes Island, Greece on June 15-17, 2017. Proceeding of UNCECOMP 2017, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), pp. 1-15, (2017).

[16] - C. Soize (Semi-plenary lecture) in collaboration with C. Farhat, Nonparametric probabilistic approach of model uncertainties introduced by a projection-based nonlinear reduced-order model, 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS Congress 2016, the Island of Crete, Greece, June 5-10, 2016. Proceeding of ECCOMAS 2016, M. Papadrakakis, V. Papadopoulos, G. Stefanou, V. Plevris (eds.), ISBN: 978-618-82844-0-1, Vol. 1, pp. 1-25, (2016).

[15] - C. Soize (Plenary lecture) in collaboration with C. Desceliers, J. Guilleminot, T.T. Le, M.T. Nguyen, G. Perrin, J.M. Allain, H. Gharbi, D. Duhamel, C. Funfschilling, Stochastic representations and statistical inverse identification for uncertainty quantification in computational mechanics, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015. Proceedings of UNCECOMP2105, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), e-book, ISBN: 978-960-99994-9-6, pp. 1-26 (2015).

[14] - C. Soize, (Keynote lecture), Advanced methodologies for the identification of stochastic models in computational mechanics. Case of uncertainty quantification for dynamical systems and case of mesoscale elasticity random fields for heterogeneous microstructures, Uncertainties 2012, Maresias, Brazil, February 27 - March 02, 2012.

[13] - C. Soize, (Keynote lecture), Identification of high-dimension polynomial chaos expansions of tensor-valued random fields from limited observed responses of boundary value problems, ECCOMAS Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering (ECCM-2010), Paris, May 16-21, 2010.

[12] - C. Soize, (Opening Keynote lecture), Generalized probabilistic approach of uncertainties in computational dynamics, First International Symposium IMPACT 2010 on "Dynamic of Systems, materials and structures", Djerba, Tunisie, 22-24 March, 2010.

[11] - C. Soize, (Semi-Plenary lecture), Information Theory for Stochastic Modeling of uncertainties in high dimension. Application to a new construction of the challenging inverse problem relative to the generation of accelerograms associated with SRS. COMPDYN 2009, Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Rhodes, Greece, June 22-24, 2009.

[10] - C. Soize (Plenary lecture), Modélisation probabiliste, identification et propagation des incertitudes dans les modèles numériques des systèmes mécaniques complexes, Actes du 9e Colloque National en Calcul des Structures, Presqu'île de Giens (Var) Giens (Var), 25-29 Mai 2009.

[9] - C. Soize (Plenary lecture), Maximum entropy principle for stochastic models in computational sciences. EM08, The Inaugural International Conference of the Engineering Mechanics Institute,University of Minnesota, Minneapolis, Minnesota, USA, May 16-21, 2008.

[8] - C. Soize (Keynote lecture), Nonparametric probabilistic approach of uncertainties in computational elastoacoustics of complex systems. Experimental identification and validation. LSAME 08, Leuven Symposium on Applied Mechanics in Engineering, Katholieke Univ Leuven, March 31 - April 2, 2008. Proceedings of LSAME.08: Leuven Symposium on Applied Mechanics in Engineering,edited by B. Bergen, M. De Munck, M. Desmet et al., Pts 1 and 2, pp. 463-472, 2008.

[7] - C. Soize (Semi-Plenary lecture), C. Chen, J.-F. Durand, D. Duhamel, L. Gagliardini, Computational Elastoacoustics of Uncertain Complex Systems and Experimental Validation, COMPDYN 2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, June 13-15, 2007.

[6] - C. Soize (Keynote lecture), Stochastic modeling of uncertainties in computational dynamics and applications, pp. 1-19, 2nd LNCC Meeting on Computational Modelling, Petropolis, RJ, Brazil, August 8-11, 2006.

[5] - C. Soize (Plenary lecture), Probabilistic models for computational stochastic mechanics and applications, 9th International Conference on Structural Safety and Reliability ICOSSAR'05, Rome, Italy, June 19-23, 2005.

[4] - C. Soize (Keynote lecture), Model uncertainty issues for predictive models. Elements of Predictability Workshop, organized by The Johns Hopkins University and Sandia National Laboratory, The Johns Hopkins University on November 13-14, 2003.

[3] - C. Soize (Keynote lecture), Modélisation probabiliste des incertitudes de modélisation en dynamique des structures soumises aux seismes, pp. 1-11, International Conference "Risk, Vulnerability and Reliability in Construction: towards a reduction of disasters", Alger, October 11-12, 2003.

[2] - C. Soize (Plenary lecture), Random uncertainties modeling in dynamical systems, EURODYN 2002, Fifth European Conference on Structural Dynamics, Munich, Germany, September 2-5, 2002.

[1] - C. Soize (Plenary lecture), Trends in modeling of structural-acoustics systems with structural complexity in low- and medium-frequency ranges, 16th International Congress on Acoustics and 135th meeting Acoustical Society of America, Seattle, Washington, USA, June 20-26, 1998.

### 7.6. Communications in International and National Conferences

**2026**

[476] - O. Ezvan, C. Desceliers, C. Soize, E. Capiez-Lernout, Neural network hyperreduction for parameterized reduced models in nonlinear stochastic dynamics, 32nd edition of ISMA and 11th edition of USD, KU Leuven, Belgium, 7-9 September 2026.

[475] - G. La Valle, C. Soize, Nonlocal elastic modeling and stochastic analysis of particle-based materials with wave-based identification, 10th ECCOMAS and 17th WCCM, Munich, Germany, 19-24 July 2026.

[474] - G. La Valle, C. Soize, D.J. Steigmann, A micromorphic continuum based on Cauchy-Piola kinematics for energetically equivalent micro- and mesoscale analysis, 20th US National Congress on Theoretical and Applied Mechanics, USNCTAM'26, Pasadena, CA, June 21-26, 2026.

[473] - Q.-D. To, C. Léonard, C. Soize, Helium transport in Silicon channel, a multi-stage study using DFT, MD, ML and MC simulations, 51st Vietnam Conference on Theoretical Physics, VCTP-51, Nha Trang, 3-6 August, 2026.

**2025**

[472] - E. Capiez-Lernout, O. Ezvan, C. Soize, Stochastic dynamics and surrogate modeling for nonlinear aerospace nozzle systems with partial observations, IMAC-XLIII 2025, Orlando, USA, 10-13 February 2025. A Conference and Exposition on Structural Dynamics 2025, Society for Experimental Mechanics Annual Conference and Exposition, SEM/IMAC, Springer (2025).

[471] - O. Ezvan, C. Desceliers, C. Soize, E. Capiez-Lernout, Neural network hyperreduction for parameterized reduced-order models in nonlinear stochastic dynamics, UNCECOMP 2025, Rhodes-Island, Greece, June 15-18, 2025.

[470] - E. Jewell, C. Farhat, C. Soize, A Tractable nonparametric probabilistic approach for modeling and quantifying model-form uncertainty in CFD computations with turbulence modeling , AIAA SciTech 2025 Forum, Orlando, Florida, January 6-10, 2025. roceedings published in AIAA Journal, doi: 10.2514/6.2025-2301, pp. 1-25 (2025).

[469] - G. La Valle, C. Soize, Particle-based materials: nonlocal elasticity, stochastic analysis, and wave propagation-based identification, Methods in Metamaterials design: mathematical modelling, numerical techniques, experiments, Meta-Meeting MEMOCS 2025, Arpino, Italy, 30 March - 4 April 2025.

[468] - R. Jorge Do Maroc, G. Perrin, C. Funfschilling, C. Soize, Bayesian calibration of a non-linear controlled dynamic system with missing data: application to high speed-train, UNCECOMP 2025, ECCOMAS Thematic Conference on Uncertainty Quantification in Computational Sciences and Engineering, Rhodes-Island, Greece, June 15-18, 2025.

[467] - C. Soize, Potentially useful probabilistic approaches to uncertainty quantification and statistical surrogate models for metamaterials design, Methods in Metamaterials design: mathematical modelling, numerical techniques, experiments, Meta-Meeting MEMOCS 2025, Arpino, Italy, 30 March - 4 April 2025.

[466] - C. Soize, L. Joubert-Doriol, A. Izmaylov, Quantum computer formulation of the FKP-operator eigenvalue problem for probabilistic learning on manifolds, 18th U.S. National Congress on Computational Mechanics, USNCCM 2025, Chicago, Illinois, July 20-24, 2025.

[465] - Q.-D. To, C. Soize, Probabilistic learning of gas wall interaction from Molecular Dynamics simulations and application to gas transport problems in nano micropores, InterPore2025, 17th Annual Meeting, Albuquerque, New Mexico, USA 18-23 May 2025.

**2024**

[464] - E. Capiez-Lernout, O. Ezvan, C. Soize, Computational update of a statistical surrogate model for nonlinear stochastic dynamics using partial target dataset in the context of aerospace nozzle analysis, The 9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024), Lisboa, Portugal, 3-7 June 2024.

[463] - P. Chen, J. Guilleminot, C. Soize, Concurrent multiscale simulations of nonlinear random materials: a probabilistic learning perspective, 16th World Congress on Computational Mechanics (WCCM16), Vancouver, Canada, 21-26 July, 2024.

[462] - O. Ezvan, Capiez-Lernout, C. Soize, Probabilistic learning in nonlinear computational stochastic dynamics: investigating a partially observed uncertain nozzle model, 16th World Congress on Computational Mechanics (WCCM16), Vancouver, Canada, 21-26 July, 2024.

[461] - E. Jewell, C. Farhat, C. Soize, A nonparametric probabilistic approach for modeling and quantifying model-form uncertainty in CFD with turbulence modeling, USACM Thematic conference on "Uncertainty Quantification for Machine Learning Integrated Physics modeling (UQ-MLIP 2024)", Crystal City, Arlington, VA, August 12-14, 2024.

[460] - R. Jorge Do Marco, G. Perrin, C. Funfschilling, C. Soize, Real-time optimisation of speed control to limit train energy consumption using manifold learning, SIAM Conference on Uncertainty Quantification (SIAM-UQ24), Trieste, Italy, February 27 - March 1,2024.

[459] - R. Jorge Do Marco, G. Perrin, C. Funfschilling, C. Soize, Bayesian calibration of a model for predicting the energy consumption of high-speed trains, MASCOT-NUM 2024, Hyères, France, 3-5 April 2024.

[458] - R. Jorge Do Marco, G. Perrin, C. Funfschilling, C. Soize, Constrained optimization of driver control to limit energy consumption, Railways 2024, The Sixth International Conference on Railway Technology: Research, Development and Maintenance , Prague, Czech Republic, 1-5 September 2024. Proceedings published by Civil-Comp Press, pp. 1-12, doi:10.4203/ccc.7.21.3, 2024.

[457] - G. Perrin, C. Soize, Reconstruction of random fields concentrated on one-dimensional manifold using irregularly sampled data, USD2024 conference on Uncertainty in Structural Dynamics, Leuven, Belgium, 9-11 September 2024, Proceeding USD 2024, pp. 1-6

[456] - A. Sinha, C. Desceliers, C. Soize, G. Cunha, Statistical surrogate models on small datasets for aeroacoustic computational modeling in liners of turbofan engines, EMI 2024 International Conference, Vienna, Austria, September 11-13, 2024.

[455] - C. Soize (Plenary lecture), Probabilistic Learning on Manifolds (PLoM) for statistical surrogates of stochastic nano-to-macro systems with uncertainties, and updating from small and incomplete datasets, ICCM 2024, The 15th International Conference of Computational Methods, Virtual Conference, July 15-18, 2024.

**2023**

[454] - M.-J. Azzi, C. Farhat, C. Soize (Plenary lecture given by C. Farhat), Recent enhancements of the nonparametric probabilistic method for UQ and digital twinning, 17th U.S. National Congress on Computational Mechanics, USNCCM 2023, Albuquerque, New Mexico, July 23-27, 2023.

[453] - E. Capiez-Lernout, C. Soize, Formulation of a high-dimensional optimization problem combined with probabilistic learning in a turbomachinery detuning context, 5th International Conference on Uncertainty Quantification in Computational Sciences and Engineering, UNCECOMP 2023, 12-14 June 2023, Athens, Greece.

[452] - E. Capiez-Lernout, C. Soize, Detuning optimization of nonlinear mistuned bladed disks using a probabilistic learning tool. In: Platz, R., Flynn, G., Neal, K., Ouellette, S. (eds) Model Validation and Uncertainty Quantification, Volume 3, pp. 169-171, SEM 2023. Conference Proceedings of the 41st IMAC, Society for Experimental Mechanics Series. Springer, 2024, doi:10.1007/978-3-031-37003-8_26.

[451] - E. Capiez-Lernout, C. Soize, Computational validation of a robust design methodology using probabilistic learning (PLoM) for the detuning optimization of nonlinear bladed-disks, XII International Conference on Structural Dynamics, EURODYN 2023, 2-5 July 2023, Delft, Netherlands.

[450] - O. Ezvan, C. Soize, C. Desceliers, R. Ghanem, Probabilistic learning inference for model updating in stochastic structural dynamics with a single target and limited data, 5th International Conference on Uncertainty Quantification in Computational Sciences and Engineering, UNCECOMP 2023, 12-14 June 2023, Athens, Greece.

[449] - O.Ezvan, C. Soize, C. Desceliers, Model updating in stochastic structural dynamics with a single target and limited data using probabilistic learning on manifold, XII International Conference on Structural Dynamics, EURODYN 2023, 2-5 July 2023, Delft, Netherlands.

[448] - C. Farhat, M.-J. Azzi, M. Pavone, C. Soize, Physics-Based Digital Twinning, 17th U.S. National Congress on Computational Mechanics, USNCCM 2023, Albuquerque, New Mexico, July 23-27, 2023.

[447] - R. Jorge Do Marco, G. Perrin, C. Funfschilling, C. Soize, Real-time optimization of speed control to limit train energy consumption, MASCOT-NUM 2023, Le Croisic, France, 3-6 April 2023.

[446] - G. La Valle, B.E. Abali, G. Falsone, C. Soize, Sensitivity with respect to uncertainties of a particle-based homogeneous and isotropic second-gradient continuum model, International Workshop Mathematical Modelling in Biology and Medecine, Arpino, Italy, 8-12 May 2023.

[445] - G. La Valle, B.E. Abali, G. Falsone, C. Soize, Sensitivity of a granular homogeneous and isotropic second-gradient continuum model with respect to uncertainties, ASCE-EMI 2023 International Conference, Palermo, Italy, August 27-30, 2023.

[444] - J. Nespoulous, C. Funfschilling, G. Perrin, C. Soize, Optimisation de la vitesse de trains sous contraintes de confort et de ponctualité, en présence d'incertitudes, 54èmes Journées de Statistique de la SFdS (JDS 2023), Université Libre de Bruxelles, Belgique, 3 au 7 juillet 2023.

[443] - A. Sinha, C. Desceliers, C. Soize, G. Cunha, Aero-acoustic liner impedance metamodel construction from a small dataset using probabilistic learning and neural networks, 5th International Conference on Uncertainty Quantification in Computational Sciences and Engineering, UNCECOMP 2023, 12-14 June 2023, Athens, Greece.

[442] - A. Sinha, C. Desceliers, C. Soize, G. Cunha, Machine learning methodology for constructing an aero-acoustic liner impedance metamodel from a computationally expensive model, 17th U.S. National Congress on Computational Mechanics, USNCCM 2023, Albuquerque, New Mexico, July 23-27, 2023.

[441] - C. Soize (General lecture), High-dimension probabilistic learning inference constrained by a stochastic computational model and by target statistical moments in the framework of a small training dataset, 14th International Symposium on Continuum Models and Discrete Systems, CMDS 14, Paris, CNAM, France – 26-30 June 2023.

[440] - C. Soize (Keynote Lecture), Predictive statistical surrogate model constructed using constrained probabilistic learning from small datasets for under-observed nonlinear stochastic computational models, 17th U.S. National Congress on Computational Mechanics, USNCCM 2023, Albuquerque, New Mexico, July 23-27, 2023.

**2022**

[439] - E. Capiez-Lernout, C. Soize, Detuning optimization of nonlinear mistuned bladed-disks, ASME 2022 Turbomachinery Technical Conference, Turbo Expo 2022, Rotterdam, The Netherlands, 13-17 June 2022. Proceedings of the ASME 2022 Turbomachinery Technical Conference, Turbo Expo 2022, doi: 10.1115/GT2022-84171, Paper GT2021-84171, pp. 1-11, 2022.

[438] - E. Capiez-Lernout, C. Soize, Probabilistic learning based optimization of the detuning of bladed-disks in nonlinear stochastic dynamics in presence of mistuning, The 15th World Congress of Computational Mechanics (WCCM 2022), Virtual Conference, Yokohama, Japan, 31 July - 5 August 2022.

[437] - E. Capiez-Lernout, C. Soize, Intentional mistuning optimization of nonlinear mistuned bladed-disks, 25 ème Congrès Français de Mécanique, Nantes, France, August 29 - September 2, 2022. Proceedings of CFM 2022, pp. 1-6 (2022).

[436] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, Robust adaptation of the train speed for energy saving under punctaulity and security constraints, MASCOT-NUM 2022, Clermont Ferrand, France, 7-9 June 2022.

[435] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, Uncertainty quantification for high-speed train dynamics modeling and optimization under uncertainties to limit energy consumption, The 15th World Congress of Computational Mechanics (WCCM 2022), Virtual Conference, Yokohama, Japan, 31 July 31 - 5 August 2022.

[434] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, Driver's control optimization under uncertainties to reduce energy consumption of high-speed trains, Railways 2022, The fifth international conference of railway technology, Montpellier, 22-25 August 2022. Proceedings of the Fifth International Conference on Railway Technology: Research,

Development and Maintenance, J. Pombo (Ed.) , Civil-Comp Conferences, doi: 10.4203/ccc.1.7.6, Volume 1, Paper 7.6,pp; 1-5, Civil-Comp Press, Edinburgh, United Kingdom, 2022.

[433] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, Bayesian inference for high-speed train dynamics and speed optimization under uncertainty for energy saving, The 30th edition of the biennial ISMA conference on Noise and Vibration Engineering (ISMA 2022) and The 9th International Conference on Uncertainty in Structural Dynamics, USD 2022, Leuven, Belgium, September 12-14, 2022. Proceedings of ISMA-USD 2022, KU Leuven, Belgium, pp. 1-6 (2022).

[432] - A. Sinha, C. Desceliers, C. Soize, G. Coelho-Cunha, Probabilistic learning on manifolds for liner impedance for design optimisation, ASCE-EMI 2022, Baltimore, USA, 31 May - 3 June 2022.

[431] - A. Sinha, C. Desceliers, C. Soize, G. Cunha, Probabilistic learning on manifolds for design optimisation of aero-acoustic liner impedance, International Conference on Uncertainty in Structural Dynamics, USD 2022, Leuven, Belgium September 12-14, 2022. Proceedings of ISMA-USD 2022, KU Leuven, Belgium, pp. 1-7 (2022).

[430] - C. Soize (Invited Lecture), Posterior probabilistic learning constrained by stochastic PDE and experimental statistical moments of physics observations. USACM Thematic conference on "Uncertainty Quantification for Machine Learning Integrated Physics modeling (MLIP)", Crystal City, Arlington, VA, August 18-19, 2022.

**2021**

[429] - E. Cataldo, C. Soize, L. Monteiro, Novel stochastic model for producing voice based on the unification of existing deterministic models and represented by a neural network, The 14th World Congress of Computational Mechanics (WCCM 2020) and ECCOMAS Congress 2020, Paris, Virtual Congress, 11-15 January, 2021.

[428] - R. Ghanem, C. Soize, V. Aithataju, L. Mehrez, Probabilistic learning on manifolds for prognosis and characterization of the digital twin, Mechanistic Machine Learning and Digital Twins for Computational Science, Engineering and Technology (MMLDT-CSET 2021), IACM Conference, Hyatt Regency Mission Bay, San Diego, CA, United States, 26-29 September 2021.

[427] - M. Mignolet, C. Soize, Non-gaussian vectors modeling by compressed principal component analysis, The 14th World Congress of Computational Mechanics (WCCM 2020) and ECCOMAS Congress 2020, Paris, Virtual Congress, 11-15 January, 2021.

[426] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, Optimization under uncertainties of high-speed train speed to limit energy consumption, UNCECOMP 2021, 4th International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Athens, Greece, 28-30 June 2021.

[425] - J. Nespoulous, C. Soize, C. Funfschilling, G. Perrin, High-speed train speed optimization for limiting energy consumption, IAVSD 2021, the 27th IAVSD Symposium on Dynamics of Vehicles on Roads and Tracks, Saint-Petersburg, Russia, 16-20 August 2021.

[424] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, A robust analysis of a mistuned-detuned bladed disk with geometrical nonlinearities, The 14th World Congress of Computational Mechanics (WCCM 2020) and ECCOMAS Congress 2020, Paris, Virtual Congress, 11-15 January, 2021.

[423] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Robust analysis of a mistuned-detuned bladed disk in finite displacements, IMAC XXXIX Virtual, Next Frontier in Structural Dynamics, Orlando, USA, Virtual Congress, 08-11 February 2021 Paris.

**2020**

[422] - E. Cataldo, C. Soize, R.L. Silva, J.M.M. Silva, Identification of a stochastic process modeling the stiffness of the vocal folds for a voice production model represented by a neural network, 11th International Conference on Structural Dynamics, EURODYN 2020, Streamed from Athens, Greece, 23-26 November 2020. EASD Procedia EURODYN 2020, doi: 10.47964/1120.9279.18394, M. Papadrakakis, M. Gragiadakis, C. Papadimitriou (eds.), Vol. 1, pp. 3403-3412, 2020.

[421] - V. Dangla, C. Soize, G. Cunha, A. Mosson, M. Kassem, B. Van den Nieuwenhof, Stochastic computational model of 3D acoustic noise predictions for nacelle liners, AIAA Aviation 2020 Forum, Published Online: 8 June 2020, doi: 10.2514/6.2020-2545, Pages 2545, Virtual Event, June 15-19, 2020.

[420] - R. Ghanem, C. Soize, Probabilistic machine learning with intrinsic constraints, SIAM Conference on Mathematics of Data Science (MSD20), Cincinnati, Ohio, USA, May 5-7, 2020.

[419] - R. Ghanem, C. Soize, Probabilistic Learning on Manifolds (PLoM), Machine Learning in Science and Engineering (MISE 2020), Virtual Conference, Columbia University, December 14-15, 2020.

[418] - J. Reyes, L. Gagliardini, C. Desceliers, C. Soize, Multi-frequency model reduction for uncertainty quantification in computational vibroacoustics of automobiles, ISNVH 2020, 11th International Styrian Noise, Vibration & Harshness Congress: The European Automotive Noise Conference, SAE Technical Paper 2020-01-1583, ISSN: 0148-7191, e-ISSN: 2688-3627, online even via MS Teams, 4 November 2020.

**2019**

[417] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Nonlinear dynamical analysis for coupled fluid-structure systems, IMAC XXXVII, Orlando, Florida, USA, January, 28-31, 2019. Proceedings of the 37th IMAC, A Conference and Exposition on Structural Dynamics 2019, In Nonlinear Structures and Systems, G. Kerschen, M. Brake, and L. Renson (Eds.), doi:10.1007/978-3-030-12391-8_20, Volume 1, pp. 151-153 (2019).

[416] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Analyse d'une exérimentation exhibant une instabilité dans un liquide avec un modèle réduit non linéaire fluide-structure. CSMA 2019, Actes du 14ème Colloque National en Calcul des Structures, 2019, Presqu'île de Giens (Var) Giens (Var), 13-17 Mai, 2019.

[415] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Nonlinear reduced-order model of coupled fluid-structure system with sloshing and capillarity - Revisiting and explaining an experiment, 8th edition of the International Conference on Computational Methods for Coupled Problems in Science and Engineering (Coupled Problems 2019), 3-5 June 2019, Sitges, Catalonia, Spain.

[414] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Uncertainty quantification in reduced-order model for vibrations of geometrical nonlinear structures coupled with acoustic fluids in presence of sloshing and capillarity, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019.

[413] - M. Arnst, C. Soize, Bayesian inversion of symmetric positive definite matrices of reduced-order models with application to updating nonparametric probabilistic models in structural dynamics, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019. Proceeding of UNCECOMP 2019.

[412] - E. Capiez-Lernout, C. Soize, Nonparametric probabilistic approach for uncertainty quantification of geometrically nonlinear mistuned bladed-disks, RASD 2019, 13th International Conference on Recent Advances in Structural Dynamics, Southampton, 15 - 17 April, 2019. Proceedings of RASD 2019, IOP Conference Series: *Journal of Physics*, doi:10.1088/1742-6596/1264/1/012038, **1264**(12038), 1-10 (2019).

[411] - E. Capiez-Lernout, C. Soize, Computational analysis of a mistuned bladed-disk using a stochastic nonlinear reduced-order model, 26th International Congress on Sound and Vibration (ICSV26), Montreal, Canada, 7–11 July 2019.

[410] - V. Dangla, S. Soize, M. Kassem, Réduction des modèles aéroacoustiques numériques en présence d'un écoulement pour le traitement acoustique des turboréacteurs. CSMA 2019, Actes du 14ème Colloque National en Calcul des Structures, pp. 1-6, 2019, Presqu'île de Giens (Var) Giens (Var), 13-17 Mai, 2019.

[409] - V. Dangla, C. Soize, G. Coelho-Cunha, M. Kassem, A. Mosson, B. Van den Nieuwenhof, Uncertainty quantification in computational models of nacelle acoustic liners for turbofan acoustic noise predictions, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019.

[408] - C. Farhat, R. Tezaur, C. Soize, Physics-based and data-driven stochastic modeling for digital twins, NAFEMS New Paradigms in Engineering Simulation-Databest, 2nd International Workshop on Data-Based Engineering Science and Technology, ENSAM Paris-Tech, 20-22 march 2019.

[407] - L. Gagliardini, C. Soize, J. Reyes, Vibroacoustic model's likelihood computation based on a statistical reduction of random FRF matrices, SAE Noise and Vibration Conference and Exhibition, Grand Rapids, Michigan, USA, 10-13 June, 2019. SAE Technical Paper 2019-01-1593, 2019, doi:10.4271/2019-01-1593.

[406] - M. Nesterova, F. Schmidt, C. Soize, Estimation of remaining life of the orthotropic deck of a bridge exposed to extreme traffic and wind actions, 12th International Workshop on Structural Health Monitoring, IWSHM 2019, Stanford University, USA, September 10-12, 2019, Proceedings IWSHM2019,pp.1-7

[405] - R. Ohayon, C. Soize, Reduced-order model of nonlinear vibration of structure coupled with compressible liquid in presence of sloshing and capillarity, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019.

[404] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Analyse dynamique du désaccordage involontaire et intentionnel des roues aubagées en présence de non-linéarités géométriques, CSMA 2019, Presqu'île de Giens (Var) Giens (Var), 13-17 Mai, 2019, Actes du 14ème Colloque National en Calcul des Structures, pp. 1-7, 2019.

[403] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Mistuning analysis of a detuned bladed-disk with geometrical nonlinearities, ASME Turbo Expo 2019, Phoenix, Arizona, USA, June 17-21 (2019). Proceedings of the ASME Turbo Expo 2019: Turbine Technical Conference and Exposition, Paper GT2019-90820, pp. 1-8 (2019).

[402] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Computational analysis of a detuned-mistuned bladed-disk with geometrical nonlinearities, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019.

[401] - F. Pled, C. Desceliers, A.H. Gandomi, C. Soize, Neural network prediction of cortical bone damage using a stochastic computational mechanical model, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019.

[400] - J. Reyes, C. Desceliers, C. Soize, L. Gagliardini, Réduction de modèle multi-niveau pour la quantification de l'incertitude dans le cas de la dynamique vibroacoustique. CSMA 2019, Actes du 14ème Colloque National en Calcul des Structures, pp. 1-6, 2019, Presqu'île de Giens (Var) Giens (Var), 13-17 Mai, 2019.

[399] - J. Reyes, C. Soize, L. Gagliardini, C. Desceliers, Multilevel model reduction for uncertainty quantification in computational vibro-acoustical dynamics, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, June 24-26, 2019.

[398] - C. Soize (Keynote lecture), Probabilistic learning on manifolds for the small-data challenge in Uncertainty Quantification, International Conference on Uncertainty Quantification and Optimization (UQOP), Conference organized by The European research and training network UTOPIAE, Sorbonne University, Paris, 18-20 March 2019.

[397] - C. Soize (Keynote Lecture), in collaboration with R. Ghanem, A probabilistic learning on manifolds as a new statistical tool in data science with applications in computational mechanics, International Workshop on Data Science in Civil Engineering, Tongji University, Shanghai, China, June 8-9, 2019.

[396] - C. Soize (Plenary lecture), A probabilistic learning on manifolds as a new tool in machine learning and data science with applications in computational mechanics, UNCECOMP 2019, 3nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, and COMPDYN 2019, 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Crete, Greece, June 24-26, 2019.

[395] - H. Wang, J. Guilleminot, C. Soize, Uncertainty quantification in molecular dynamics simulations using a stochastic reduced-order basis, Engineering Mechanics Institute Conference, June 18-21, 2019, California Institute of Technology, USA.

[394] - H. Wang, J. Guilleminot, C. Soize, Stochastic modeling of uncertainties in molecular dynamics simulations using a stochastic reduced-order basis, US National Congress on Computational Mechanics, USNCCM 2019, July 28, August 1, 2019, Austin, Texas, USA.

**2018**

[393] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Geometrically nonlinear effects on a fluid-structure computational model with sloshing and capillarity, 6th European Conference on Computational Mechanics (Solids, Structures and Coupled Problems) (ECCM 6), Glasgow, UK, 11-15 June, 2018.

[392] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, A computational strategy for solving large generalized eigenvalue problems in fluid structure interactions, The 13th World Congress of Computational Mechanics (WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[391] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Nonlinear dynamical analysis of a fluid-structure computational model with sloshing and capillarity, Conference on Noise and Vibration Engineering (ISMA 2018), Leuven, Belgium, 17-19 September 2018. Proceedings of ISMA 2018, KU Leuven, Belgium, pp. 1-12 (2018).

[390] - M. Arnst, C. Soize, Updating nonparametric probabilistic models in structural dynamics by bayesian statistical inversion of symmetric positive definite matrices in high dimension, The 13th World Congress of Computational Mechanics

(WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[389] - E. Capiez-Lernout, C. Soize, Uncertain quantification in nonlinear dynamics with an high-dimensional computational model, Conference on Noise and Vibration Engineering (ISMA 2018), Leuven, Belgium, 17-19 September 2018. Proceedings of ISMA 2018, KU Leuven, Belgium, pp. 1-11 (2018).

[388] - E. Cataldo, C. Soize, J. Barrientos, Modeling and identification of a stochastic model of vocal folds for producing voice signals with pathological characteristics, The 13th World Congress of Computational Mechanics (WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[387] - C. Farhat, A. Bos, R. Tezaur, T. Chapman, P. Avery, C. Soize, A stochastic projection-based hyperreduced order model for model-form uncertainties in vibration analysis, 2018 AIAA Non-Deterministic Approaches Conference, AIAA SciTech Forum 2018, Kissimmee, Florida, USA, 8–12 January 2018. Proceedings published in AIAA Journal, doi: 10.2514/6.2018-1410, pp. 1-20 (2018).

[386] - C. Farhat, R. Tezaur, P. Avery, C. Soize, Stochastic model hyperreduction for modeling and quantifying model-form uncertainties in vibration analysis, The 13th World Congress of Computational Mechanics (WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[385] - C. Funfschilling, D. Lebel, C. Soize, G. Perrin, Railway dynamics for the condition monitoring of suspensions, TRA Vienna 2018, A digital era for transport, Vienna, April 16 - 18, 2018.

[384] - R. Ghanem, C. Soize, Probabilistic models and sampling on manifolds, SIAM UQ, Garden Grove, USA, April 16-19, 2018.

[383] - R. Ghanem, C. Soize, Probabilistic learning for efficient optimization under risk constraints, 2018 SIAM Annual Meeting, Portland, Oregon USA, 9-13 July 2018

[382] - R. Ghanem, C. Soize, Machine Learning for Efficient Sampling in UQ. The 13th World Congress of Computational Mechanics (WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[381] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, Bayesian calibration of high speed train suspensions parameters using kriging metamodeling, IMAC XXXVIII, Orlando, Florida, USA, February 12—15, 2018. Proceedings of the conference, paper number 73, pp.1-3 (2018).

[380] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, State health monitoring of high-speed train suspensions by bayesian calibration based on gaussian surrogate modeling. The 13th World Congress of Computational Mechanics (WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[379] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, Statistical inverse method for train suspensions remote diagnosis using embedded accelerometers, Railways 2018 and STECH2018: The Fourth International Conference on Railway Technology: Research, Development and Maintenance incorporating The Eighth International Symposium on Speed-up and Sustainable Technology for Railway and Maglev Systems(STECH2018), Sitges, Barcelona, Spain, 3-7 September 2018.

[378] - M. Nesterova, F. Schmidt, E. Brühwiler, C. Soize, Generalized Pareto distribution for reliability of bridges exposed to fatigue, 9th International Conference on Bridge Maintenance, Safety and Management, IABMAS 2018, Melbourne, Australia, 9-13 July 2018. Proceeding of IABMAS 2018, pp. 1-8 (2018).

[377] - G. Perrin, C. Soize, Bayesian identification of the random elasticity field of a heterogeneous microstructure, The 13th World Congress of Computational Mechanics (WCCM 2018) and Second Pan American Congress on Computational Mechanics (PANACM II), New York, USA, July 22-27, 2018.

[376] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Geometrical nonlinear computational analysis on an intentional mistuning of a bladeddisk, 6th European Conference on Computational Mechanics (Solids, Structures and Coupled Problems) (ECCM 6), Glasgow, UK, 11-15 June 2018.

[375] - A. Picou, E. Capiez-Lernout, C. Soize, M. Mbaye, Effects of geometrical nonlinearities for a rotating intentionally mistuned bladed-disk, Conference on Noise and Vibration Engineering (ISMA 2018), Leuven, Belgium, 17-19 September 2018. Proceedings of ISMA 2018, KU Leuven, Belgium, pp. 1-12 (2018).

[374] - J. Reyes, C. Soize, L. Gagliardini, G. Brogna, Nonparametric probabilistic vibroacoustic analysis with Nastran : a computational tool for estimating the likelihood of automobiles experimental FRF measurements, Conference on Noise

and Vibration Engineering (ISMA 2018), Leuven, Belgium, 17-19 September 2018. Proceedings of ISMA 2018, KU Leuven, Belgium, pp. 1-14 (2018).

[373] - C. Soize, R. Ghanem, Data-driven probabilistic learning on manifolds, The 4th conference on Model Reduction of Parameterized Systems (MoRePaS IV), Nantes, France, April 10-13, 2018.

[372] - X.Q. Wang, M.P. Mignolet, C. Soize, Nonlinear geometric modeling of uncertain structures through nonintrusive reduced order modeling, CSM8, 8th Conference on Computational Stochastic Mechanics, Paros, Greece, June 10-13, 2018, Proceedings of CMS8, Eds. G. Deodatis and P.D. Spanos, Research Publishing (S) Pte. Ltd, doi: 10.3850/978-981-11-2723-6-58-cd, pp. 559-569 (2018).

**2017**

[371] - Q. Akkaoui, E. Capiez-Lernout, C. Soize, R. Ohayon, Computational modeling of a coupled fluid-structure system with sloshing and capillarity, CFM 2017, Lille, August 28, September 1, 2017. Proceeding of CFM 2017, pp. 1-14 (2017).

[370] - A. Bos, C. Farhat, P. Avery, C. Soize, Modeling model-form uncertainties in eigenvalue computations using a data-driven stochastic reduced-order model, USNCCM 2017, 14th U. S. National Congress on Computational Mechanics, Montreal, Canada, July 17 - 20, 2017.

[369] - E. Capiez-Lernout, C. Soize, Q. Akkaoui, R. Ohayon, Uncertainty propagation in a nonlinear reduced-order model in internal elasto-acoustics, CFM 2017, Lille, August 28, September 1, 2017. Proceeding of CFM 2017, pp. 1-8 (2017).

[368] - E. Capiez-Lernout, C. Soize, R. Ohayon, Uncertainty quantification for nonlinear reduced-order model elasto-acoustics computational model, 10th International Conference on Structural Dynamics, EURODYN 2017, Rome, Italy, 10 - 13 September 2017. Proceedings of EURODYN 2017, Procedia Engineering, Vol. 199, pp. 1204-1209 (2017).

[367] - R. Capillon, C. Desceliers, C. Soize, Model uncertainties in computational viscoelastic linear structural dynamics, 10th International Conference on Structural Dynamics, EURODYN 2017, Rome, Italy, 10 - 13 September 2017. Proceedings of EURODYN 2017, Procedia Engineering, Vol. 199, pp. 1210-1215 (2017).

[366] - E. Cataldo, C. Soize, Identifying a stochastic process related to the stiffness in a voice production mechanical model, 10th International Conference on Structural Dynamics, EURODYN 2017, Rome, Italy, 10 - 13 September 2017. Proceedings of EURODYN 2017, Procedia Engineering, Vol. 199, pp. 912-917 (2017).

[365] - O. Ezvan, A. Batou, C. Soize, L. Gagliardini, Multilevel stochastic reduced-order model for the robust vibration analysis of complex structures in a broad frequency band, 2nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2017), the Island of Rhodes, Greece, June 15-17, 2017. Proceeding of UNCECOMP 2017, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), 2017.

[364] - R. Ghanem, C. Soize, Data-driven sampling and prediction on manifolds, USACM 2017, Thematic Workshop on Uncertainty Quantification and Data-Driven Modeling, Austin, Texas, USA, March 23-24, 2017.

[363] - W. Kassir, C. Soize, J.-V Heck, F. De Oliveira, A non-Gaussian probabilistic approach for estimating the equivalent static wind loads on structures from unsteady pressure field, The 7th European-African Conference on Wind Engineering (EACWE 2017), Liege, Belgium, July 4-7, 2017.

[362] - D. Lavazec, G. Cumunel, D. Duhamel, C. Soize, Attenuation of acoustic waves and mechanical vibrations at low frequencies by a nonlinear dynamical absorber, USNCCM 2017, 14th U. S. National Congress on Computational Mechanics, Montreal, Canada, July 17 - 20, 2017.

[361] - D. Lavazec, G. Cumunel, D. Duhamel, C. Soize, Attenuation of acoustic waves and mechanical vibrations at low frequencies by a nonlinear dynamical absorber, CFM 2017, Lille, August 28, September 1, 2017. Proceedings of CFM 2017, pp. 1-12 (2017).

[360] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, Inverse identification of mechanical parameters of high-speed train suspensions submitted to random track irregularities, 12th International Conference on Structural Safety & Reliability, ICOSSAR 2017, Vienna, Austria, 6-10 August, 2017. Proceeding of ICOSSAR 2017, pp. 1-9 (2017).

[359] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, Bayesian calibration of mechanical parameters of high-speed train suspensions., 10th International Conference on Structural Dynamics, EURODYN 2017, Rome, Italy, 10 - 13 September 2017. Proceedings of EURODYN 2017, Procedia Engineering, Vol. 199, pp. 1234-1239 (2017).

[358] - D. Lebel, C. Soize, C. Funfschilling, G. Perrin, Identification expérimentale des paramètres de suspensions des trains à grande vitesse par méthode statistique inverse, CSMA 2017, Actes du 13ème Colloque National en Calcul des Structures, pp. 1-6, Presqu'île de Giens (Var) Giens (Var), 15-19 Mai, 2017.

[357] - M. Nesterova, F. Schmidt, C. Soize, D. Siegert, Extreme effects on bridges caused by traffic and wind, CFM 2017, Lille, August 28, September 1, 2017. Proceeding of CFM 2017, pp. 164 (2017)

[356] - C. Soize (Plenary lecture) in collaboration with R. Ghanem, Probabilistic learning on manifold for optimization under uncertainties, UNCECOMP 2017, 2nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering and COMPDYN 2017, 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Rhodes Island, Greece on June 15-17, 2017. Proceeding of UNCECOMP 2017, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), pp. 1-15 (2017).

[355] - C. Soize, R. Ghanem (Keynote lecture presented by R. Ghanem), Manifold sampling for data-driven UQ and optimization, USNCCM 2017, 14th U. S. National Congress on Computational Mechanics, Montreal, Canada, July 17 - 20, 2017.

[354] - B. Van den Nieuwenhof, G. Lielens, E. Rosseel, V. Dangla, C. Soize, M. Kassem, A. Mosson, Optimal design of the acoustic treatments damping the noise radiated by a turbo-fan engine, 23rd AIAA/CEAS Aeroacoustics Conference, Denver, Colorado, USA, 5-9 June 2017. Paper AIAA 2017-4035, doi:10.2514/6.2017-4035, pp. 1-11 (2017).

**2016**

[353] - S. Audebert, A. Batou, S. Daouk, C. Soize, F. Louf, Estimer l'incertitude de modèles en dynamique des structures industrielles, 13ème Congrès Francais d'Acoustique et 20ème colloque VIbrations, SHocks and NOise, Le Mans, France, 11-15 avril 2016, Actes de la conférence, pp. 1-6 (2016).

[352] - A. Batou, C. Soize, O. Ezvan, A. Arnoux, Approche probabiliste globale/locale pour l'analyse dynamique en basses et moyennes fréquences des structures complexes, 13ème Congrès Francais d'Acoustique et 20ème colloque VIbrations, SHocks and NOise, Le Mans, France, 11-15 avril, 2016.

[351] - E. Capiez-Lernout, C. Soize, M. Mbaye, Uncertainty quantification for nonlinear reduced-order elasto-dynamics computational models. IMAC-XXXIV, A Conference and Exposition on Structural Dynamics. Orlando, Florida USA, January 25-28, 2016. Proceedings of IMAC 2016, Society for Experimental Mechanics, SEM/IMAC, pp. 1-10 (2016).

[350] - E. Capiez-Lernout, C. Soize, R. Ohayon, Uncertainty quantification of a structure with geometrical nonlinearity coupled with an internal linear acoustic fluid, The 12th World Congress of Computational Mechanics, WCCM 2016 and APCOM VI 2016, Seoul, Korea, July 24-29, 2016.

[349] - E. Capiez-Lernout, C. Soize, Modélisation numérique des incertitudes en vibration des structures non linéaires géeométriques, 13ème Congrès Francais d'Acoustique et 20ème colloque VIbrations, SHocks and NOise, Le Mans, France, 11-15 avril 2016, Actes de la conférence, pp. 1-5 (2016).

[348] - R. Capillon, C. Desceliers, C. Soize, Uncertainty quantification for viscoelastic composite structures in computational linear structural dynamics, The 6th International Conference on Uncertainty in Structural Dynamics, USD 2016, Leuven, Belgium September 19-21, 2016. Proceedings of USD 2016, KU Leuven, Belgium, pp. 1-5 (2016).

[347] - O. Ezvan, A. Batou, C. Soize, Multilevel stochastic reduced-order model in linear structural dynamics adapted to complex structures, 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS Congress 2016, the Island of Crete, Greece, June 5-10, 2016. Proceeding of ECCOMAS 2016, M. Papadrakakis, V. Papadopoulos, G. Stefanou, V. Plevris (eds.), pp. 1-12 (2016).

[346] - O. Ezvan, A. Batou, C. Soize, L. Gagliardini, Multilevel stochastic reduced-order model in computational structural dynamics with an experimental validation for an automobile, The 6th International Conference on Uncertainty in Structural Dynamics, USD 2016, Leuven, Belgium September 19-21, 2016. Proceedings of USD 2016, KU Leuven, Belgium, pp. 1-9 (2016).

[345] - O. Ezvan, A. Batou, C. Soize, Multilevel reduced-order model for uncertainty quantification in computational structural dynamics, The 12th World Congress of Computational Mechanics, WCCM 2016 and APCOM VI 2016, Seoul, Korea, July 24-29, 2016.

[344] - C. Farhat, K. Washabaugh, T. Chapman, C. Soize, Recent advances in nonlinear model reduction for design and associated uncertainty quantification, New Challenges in Computational Mechanics, Cachan, France, May 23-25, 2016.

[343] - D. Lavazec, G. Cumunel, D. Duhamel, C. Soize, A. Batou, Nonlinear microstructured material to reduce noise and vibrations at low frequencies, Joint International Conference on Motion and Vibration Control and Recent Advances in Structural Dynamics, MoVIc and RASD 2016, Southampton, United Kingdom, July 6-7 2016. Proceedings of

MoVIC and RASD 2016, *Journal of Physics: Conference Series*, doi:10.1088/1742-6596/744/1/012190, 744, 012190, pp. 1-10 (2016).

[342] - D. Lavazec, G. Cumunel, D. Duhamel, C. Soize, A. Batou, Métamatériau microstructuré non linéaire pour l'atténuation du bruit et des vibrations en basses fréquences, 13ème Congrès Francais d'Acoustique et 20ème colloque VIbrations, SHocks and NOise, Le Mans, France, 11-15 avril 2016, Actes de la conférence, pp. 1-7, 2016.

[341] - D. Lavazec, G. Cumunel, D. Duhamel, C. Soize, A. Batou, Attenuation of noise and vibration at low frequencies using a nonlinear microstructured material, International Conference on Noise and Vibration Engineering, ISMA 2016, Leuven, Belgium September 19-21, 2016. Proceedings of ISMA 2016, KU Leuven, Belgium, pp. 1-11 (2016).

[340] - C. Soize (Semi-plenary lecture) in collaboration with C. Farhat, Nonparametric probabilistic approach of model uncertainties introduced by a projection-based nonlinear reduced-order model, 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS Congress 2016, the Island of Crete, Greece, June 5-10, 2016. Proceeding of ECCOMAS 2016, M. Papadrakakis, V. Papadopoulos, G. Stefanou, V. Plevris (eds.), pp. 1-26 (2016).

**2015**

[339] - A. Batou, C. Soize, Generation of synthetic accelerograms compatible with a set of design specifications, 12th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP12), Vancouver, Canada, July 12-15, 2015. Proceedings of ICASP12, pp. 1-7 (2015).

[338] - A. Batou, C. Soize, S. Audebert, Experimental identification of a stochastic computational dynamical model using modal data measured for a family of built-up structures, IMAC Conference & Exposition on Structural Dynamics (IMAC 2015), Orlando, USA, February 02-05, 2015. Proceedings of IMAC 2015, pp. 1-8 (2015).

[337] - A. Batou, C. Soize, S. Audebert, Construction and identification of a stochastic computational dynamical model using experimental modal data, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015.

[336] - E. Capiez-Lernout, C. Soize, M. Mbaye, Uncertainty quantification in nonlinear structural dynamics for mistuned bladed disks, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015. Proceedings of UNCECOMP2105, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), e-book, ISBN: 978-960-99994-9-6, pp. 107-117 (2015).

[335] - E. Capiez-Lernout, C. Soize, M. Mbaye, Uncertainty quantification for an industrial mistuned bladed disk with geometrical nonlinearities, 60th ASME Turbo Expo 2015, Montreal, Canada, June 15-19 (2015). Proceedings of the ASME Turbo Expo 2015: Turbine Technical Conference and Exposition, Paper GT2015-42471, pp. 1-10 (2015).

[334] - E. Capiez-Lernout, C. Soize, M. Mbaye, Nonlinear dynamic analysis with an uncertain computational model for mistuned bladed disks, ICSV22, The 22st International Congress on Sound and Vibration (ICSV22), Florence, Italy, July 12-16, 2015. Proceedings of the ICSV22, pp. 1-8, International Institute of Acoustics and Vibration (IIAV) (2015).

[333] - E. Capiez-Lernout, C. Soize, M. Mbaye, Nonlinear geometric analysis of a mistuned bladed disk, Euromech Conference on Coupling and Nonlinear Interactions in Rotating Machinery (Euromech 573), Cité Internationale, Lyon, France, August 25-27, 2015. Proceedings of Euromech 573, pp. 1-2 (2015).

[332] - R. Capillon, C. Desceliers, C. Soize, Nonparametric stochastic modeling satisfying the causality principle for viscoelastic structures in computational structural dynamics, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015.

[331] - R. Capillon, C. Desceliers, C. Soize, Modélisation non paramétrique des incertitudes satisfaisant le principe de causalité pour les structures viscoélastiques en dynamique numérique, CSMA 2015, Actes du 12ème Colloque National en Calcul des Structures, pp. 1-4, 2015, Presqu'île de Giens (Var) Giens (Var), 18-22 Mai, 2015.

[330] - E. Cataldo, C. Soize, A stochastic mechanical model to generate jitter in the production of voiced sounds, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015. Proceedings of UNCECOMP 2015, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), , e-book, ISBN: 978-960-99994-9-6, pp. 79-92 (2015).

[329] - A. Cunha Jr, C. Soize, R. Sampaio, Solution of a robust optimization problem to maximize the rate of penetration of horizontal drillstrings using a nonlinear stochastic dynamic model, USNCCM XIII 2015, 13th US National Congress on Computational Mechanics USNCCM, San Diego, CA, USA, July 26-30, 2015

[328] - A. Cunha Jr, C. Soize, R. Sampaio, Robust optimization of horizontal drillstring rate of penetration through a nonlinear stochastic dynamic model, Biennial International Conference on Engineering Vibration (ICoEV-2015), Ljubljana, Slovenia, September 7-10, 2015. Proceedings of the ICOEV-2015, pp. 1-11, edited by the Department of Mechanical Engineering at the University of Ljubljanav (2015).

[327] - O. Ezvan, A. Batou, C. Soize, Global reduced-order model adapted to the low- and medium-frequency analysis of complex dynamical structures, PANACM 2015, 1st Pan-American Congress on Computational Mechanics, in conjunction with the XI Argentine Congress on Computational Mechanics, MECOM 2015, Buenos Aires, Argentina, April 27-29, 2015. Proceedings of PANACM 2015 - MECOM 2015, S. Idelsohn, V. Sonzogni, A. Coutinho, M. Cruchaga, A. Lew, and M. Cerrolaza (Eds), pp. 1-7 (2015).

[326] - O. Ezvan, A. Batou, C. Soize, A global/local approach for stochastic reduced-order modeling in low- and mid-frequency structural dynamics, COMPDYN 2015, 5th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, the Island of Crete, Greece, May 25-27, 2015.

[325] - O. Ezvan, A. Batou, C. Soize, Réduction de modèle adaptée à la dynamique basse et moyenne fréquence des structures complexes, CSMA 2015, Actes du 12ème Colloque National en Calcul des Structures, pp. 1-4, Presqu'île de Giens (Var) Giens (Var), 18-22 Mai, 2015.

[324] - J. Guilleminot, C. Soize, Random field modeling and generation for stochastic multiscale analysis, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015.

[323] - J. Guilleminot (Invited Lecturer), C. Soize, Stochastic modeling for statistical inverse identification in mechanics of materials, KAUST Research Conference: Recent Trends in Predicting and Monitoring the Integrity of Composites (COMINT), June 1-2, 2015.

[322] - T.T. Le, J. Guilleminot, C. Soize, Stochastic multiscale modeling of random interphases in nanoreinforced polymers, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015.

[321] - T.T. Le, J. Guilleminot, C. Soize, Stochastic continuum modeling of random interphases from atomistic simulations, Euromech 559, Conference on Multi-scale computational methods for bridging scales in materials and structures. Eindhoven University of Technology, Eindhoven, The Netherlands 23-25 February 2015. Proceedings of Euromech 559, pp. 1-2 (2015).

[320] - T. T. Le, J. Guilleminot, C. Soize, Modélisation stochastique continue et identification inverse d'interphases aléatoires à partir de simulations atomistiques, Actes du 22ème Congrès Français de Mécanique 2015 (CFM 2015), pp. 1-2, Lyon, France, 24-28 Août, 2015.

[319] - T.T. Le, J. Guilleminot, C. Soize, Stochastic continuum modeling of random interphases based on atomistic simulations: application to a nanoreinforced polymer, USNCCM XIII 2015, 13th U.S. National Congress on Computational Mechanics, San Diego, California, July 26-30, 2015.

[318] - N. Lestoille, C. Soize, C. Funfschilling, Characterization of the evolution of the train dynamic response under the effect of track irregularities, 24th International Symposium on Dynamics of Vehicles on Roads and Tracks, IAVSD 2015, Graz, Austria, August 17-21, 2015. Proceedings of IAVSD 2015, pp. 1-7 (2015).

[317] - R. Lima, C. Soize, R. Sampaio, Optimal design of a vibro-impact electro-mechanical system with uncertainties, 17th International Symposium on Dynamic Problems of Mechanics (DINAME 2015), Natal, Rio Grande do Norte, Brazil, February 22-27, 2015. Proceedings of DINAME 2015, V. Steffen Jr, D.A. Rade and W.M. Bessa (Editors), ABCM, pp. 1-6 (2015).

[316] - R. Lima, C. Soize, R. Sampaio, Robust design of an eletromechanical system with an embarked hammer and impact phenomena, International Conference on Structural Engineering Dynamics, ICEDyn 2015, Lagos, Algave, Portugal, 22-24 June, 2015.

[315] - G. Perrin, C. Soize, Statistical inverse problems for non-gaussian non-stationary stochastic processes defined by a set of realizations, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015. Proceedings of UNCECOMP2105, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), e-book, ISBN: 978-960-99994-9-6, pp. 134-141 (2015).

[314] - G. Perrin, C. Soize, Statistical inverse problems for non-gaussian non-stationary stochastic processes defined by a set of realizations, 12th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP12), Vancouver, Canada, July 12-15, 2015.

[313] - C. Soize (Plenary lecture), in collaboration with C. Desceliers, J. Guilleminot, T.T. Le, M.T. Nguyen, G. Perrin, J.M. Allain, H. Gharbi, D. Duhamel, C. Funfschilling, Stochastic representations and statistical inverse identification for uncertainty quantification in computational mechanics, UNCECOMP 2015, 1st ECCOMAS Thematic International Conference on Uncertainty Quantification in Computational Sciences and Engineering, the Island of Crete, Greece, May 25-27, 2015. Proceedings of UNCECOMP2105, M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.), e-book, ISBN: 978-960-99994-9-6, pp. 1-26 (2015).

**2014**

[312] - A. Batou, C.K. Choi, C. Soize, H.H. Yoo, Robust design of a multibody system of an automotive vehicle, The 3rd Joint International Conference on Multibody System Dynamics (IMSD) and the 7th Asian Conference on Multibody Dynamics (ACMD), Bexco, Busan, Korea, June 30th – July 3rd, 2014.

[311] - A. Batou, C. Soize, S. Audebert, Experimental identification of a stochastic computational model using modal data - Application to an industrial built-up structure, XIX Symposium VISHNO on Vibrations, Shocks and Noise, Aix en Provence, France, June 16-19, 2014.

[310] - A. Batou, C. Soize, S. Audebert, Identification of a stochastic computational dynamical model using experimental modal data, International Conference on Uncertainty in Structural Dynamics, USD2014, Katholieke Universiteit Leuven, Belgium, September 15-17, 2014. Proceedings of ISMA2014 - USD2014, pp. 1-10, KU Leuven, Belgium (2014).

[309] - A. Batou, C. Soize, C. K. Choi, H. H. Yoo, Robust design in multibody dynamics - application to vehicle ride-comfort optimization, IUTAM Symposium on Dynamical Analysis of Multibody Systems with Design Uncertainties, Stuttgart, Germany, June 10-13, 2014, 2014. Procedia IUTAM, Vol. 13, pp. 90–97 (2015), doi:10.1016/j.piutam. 2015.01.005.

[308] - A. Batou, C. Soize, On the use of information theory for the generation of accelerograms compatible with specifications, XXI Congress on Numerical Methods and their Applications, ENIEF 2014, Bariloche, Patagonia, Argentina, September 23 -26, 2014.

[307] - E. Capiez-Lernout, C. Soize, M. Mbaye, Computational nonlinear vibration analysis of uncertain mistuned bladed disks, 59th ASME Turbo Expo 2014, Dusseldorf, Germany, June 16-20 (2014). Proceedings of the ASME Turbo Expo 2014: Turbine Technical Conference and Exposition, Paper GT2014-25072, pp. 1-11 (2014).

[306] - E. Capiez-Lernout, C. Soize, M. Mbaye, Geometric nonlinear dynamic analysis of uncertain structures with cyclic symmetry. Application to a mistuned industrial bladed disk, International Conference on Uncertainty in Structural Dynamics, USD2014, Katholieke Universiteit Leuven, Belgium, September 15-17, 2014. Proceedings of ISMA2014 - USD2014, pp. 1-14, KU Leuven, Belgium (2014).

[305] - C.K. Choi, A. Batou, C. Soize, H.H. Yoo, Sample based reliability design of a flexible multibody system having arbitrary distributed parameters, The 3rd Joint International Conference on Multibody System Dynamics (IMSD) and the 7th Asian Conference on Multibody Dynamics (ACMD), Bexco, Busan, Korea, June 30th – July 3rd, 2014.

[304] - A. Cunha Jr, C. Soize, R. Sampaio, Analysis of the nonlinear dynamics of a horizontal drillstring, 9th International Conference on Structural Dynamics, EURODYN 2014, Porto, Portugal, 30 June - 2 July, 2014. Proceedings of EURODYN 2014, A. Cunha, E. Caetano, P. Ribeiro, G. Müller (eds.), ISSN: 2311-9020, ISBN: 978-972-752-165-4, pp. 2057-2061 (2014).

[303] - A. Cunha Jr, C. Soize, R. Sampaio, Mathematical modeling of horizontal drillstrings subjected to friction and shocks effects, XXXV Congresso de Matematica Aplicada e Computacional, CNMAC 2014, Natal, RN, Brazil, September 8 - 12, 2014. Proceedings of CNMAC 2014, pp. 1-7, SBMAC, Brazil (2014).

[302] - A. Cunha Jr, C. Soize, R. Sampaio, Exploring the nonlinear dynamics of horizontal drillstrings subjected to friction and shocks effects, MeCom - ENIEF 2014, Bariloche, Patagonia, Argentina, September 23 -26, 2014. Proceedings of the MeCom - ENIEF 2014, pp. 1-11 (2014).

[301] - A. Cunha Jr, C. Soize, R. Sampaio, Numerical study of the nonlinear dynamics of horizontal drillings, 8th European Nonlinear Dynamics Conference, ENOC 2014, Vienna, Austria, July 6-11, 2014. Proceedings of ENOC 2014 edited by Institute of Mechanics and Mechatronics at Vienna University of Technology, pp. 1-6 (2014).

[300] - O. Ezvan, A. Batou, C. Soize, Reduced-order model for the dynamical analysis of complex structures with a high modal density, ICSV 2014, The 21st International Congress on Sound and Vibration (ICSV21), Beijing, China, July 13-17, 2014. Proceedings of the ICSV21, pp. 1-8, Institute of Acoustics, Chinese Academy of Sciences (2014).

[299] - O. Ezvan, A. Batou, C. Soize, Stochastic reduced-order model for the dynamical analysis of complex structures with a high modal density, International Conference on Uncertainty in Structural Dynamics, USD2014, Katholieke Universiteit Leuven, Belgium, September 15-17, 2014. Proceedings of ISMA2014 - USD2014, pp. 1-13, KU Leuven, Belgium (2014).

[298] - J. Guilleminot, C. Soize, Adaptive ISDE-based algorithm for the generation of non-gaussian vector-valued random fields, 11th World Congress on Computational Mechanics (WCCM XI), 5th European Conference on Computational Mechanics (ECCM V), 6th European Conference on Computational Fluid Dynamics (ECFD VI), Barcelona, Spain, July 20-25, 2014.

[297] - J. Guilleminot, C. Soize, Generation of non-Gaussian vector-valued random fields for stochastic representation in multiscale analysis: an adaptive algorithm based on Itô stochastic differential equations, 14th European Mechanics of Materials Conference 2014 (EMMC14), Gothenburg, Sweden, August 27-29, 2014.

[296] - T. Le, J. Guilleminot, C. Soize, Stochastic modeling of interphase effects for nanoreinforced heterogeneous materials, 11th World Congress on Computational Mechanics (WCCM XI), 5th European Conference on Computational Mechanics (ECCM V), 6th European Conference on Computational Fluid Dynamics (ECFD VI), Barcelona, Spain, July 20-25, 2014.

[295] - N. Lestoille, C. Soize, G. Perrin, C. Funfschilling, Long time evolution of train dynamics with respect to track geometry, Railways 2014, The Second International Conference on Railway Technology: Research, Development and Maintenance, Ajaccio, Corsica, France, April 8-11, 2014. Proceedings of Railways 2014, Computational, Engineering & Technology Conferences and Publications (Civil-Comp Press & Saxe-Coburg Publications), pp. 1-14 (2014).

[294] - N. Lestoille, C. Soize, C. Funfschilling, Stochastic modeling of train dynamics under effect of track irregularities and experimental comparisons, International Conference on Uncertainty in Structural Dynamics, USD2014, Katholieke Universiteit Leuven, Belgium, September 15-17, 2014. Proceedings of ISMA2014 - USD2014, pp. 1-9, KU Leuven, Belgium (2014).

[293] - R. Lima, C. Soize, R. Sampaio, Robust design of a vibro-impact electromechanical system, XXI Congress on Numerical Methods and their Applications, MeCom - ENIEF 2014, Bariloche, Patagonia, Argentina, September 23 -26, 2014. Proceedings published in *Mecanica Computacional*, vol. XXXIII, num. 27: pp. 1813-1819 (2014).

[292] - R. Murthy, B.-K. Choi, X.Q. Wang, M. C. Sipperley, M. P. Mignolet, C. Soize, Maximum entropy modeling of discrete uncertain properties with application to friction, 7th Computational Stochastic Mechanics, Island of Santorini, Greece, June 15-18, 2014. Proceedings of the 7th International Conference on Computational Stochastic Mechanics – (CSM-7), G. Deodatis and P.D. Spanos (eds.), pp. 1-14, Columbia University, USA (2014).

[291] - M.-T. Nguyen, C. Desceliers, C. Soize, J.-M. Allain, H. Gharbi, Identification of the mesoscale model of a microstructure in using experimental measurements with an image field method and one specimen, 11th World Congress on Computational Mechanics (WCCM XI), 5th European Conference on Computational Mechanics (ECCM V), 6th European Conference on Computational Fluid Dynamics (ECFD VI), Barcelona, Spain, July 20-25, 2014.

[290] - J. R. Stewart, R. Ghanem, C. Soize, UQ Challenge Benchmarks Overview, SIAM Conference on Uncertainty Quantification, Savannah, Georgia, USA, March 31, April 3, 2014.

[289] - C. Soize, A. Arnoux, J. Avalos, A. Batou, N. Brie, E. Capiez-Lernout, L. Gagliardini, M. Mbaye, M.-P. Mignolet, J.-P. Ousty, I.E. Poloskov, Computational dynamics in low- and medium-frequency ranges. Reduced-order model and uncertainty quantification, 11th World Congress on Computational Mechanics (WCCM XI), 5th European Conference on Computational Mechanics (ECCM V), 6th European Conference on Computational Fluid Dynamics (ECFD VI), Barcelona, Spain, July 20-25, 2014.

**2013**

[288] - A. Batou, C. Soize, A. Arnoux, L. Gagliardini, N. Brie, Reduced-order model in structural dynamics for high-modal density in the LF range. Applications to automotive vehicle and fuel assemblies, DINAME 2013, XV International Symposium on Dynamic Problems of Mechanics, Rio de Janeiro, Brazil, February 17-22, 2013. Proceedings of the XV International Symposium on Dynamic Problems of Mechanics, DINAME 2013, pp. 1-10, M.A. Savi (Editor), ABCM, Buzios, RJ, Brazil, February 17-22, 2013.

[287] - A. Batou, C. Soize, N. Brie, Reduced-order model for nonlinear dynamical structures having a high modal density in the low-frequency range, MEDYNA 2013, 1st Euro-Mediterranean Conference on Structural Dynamics and Vibroacoustics, Marrakech (Morocco), April 23-25, 2013. Proceedings of MEDYNA 2013, pp. 1-4 (2013).

[286] - A. Batou, C. Soize, Generation of accelerograms compatible with response spectrum using the information theory, 15th Asia Pacific Vibration Conference (APVC), Jeju Island, Korea, June 2-6, 2013. Proceedings of APVC 2013, pp. 1-5 (2013).

[285] - A. Batou, C. Soize, Generation of response spectrum compatible accelerograms using the maximum entropy principle, COMPDYN 2013, 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos Island, Greece, June 12-14, 2013. Proceedings of COMPDYN 2013, M. Papadrakakis, V. Papadopoulos, V. Plevris (eds.), pp. 1-10 (2013).

[284] - A. Batou, C. Soize, Generation of spectrum-compatible accelerograms using information theory, Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics 2013 (VEESD 2013), Vienna, Austria, August 28-30, 2013. Proceedings of VEESD 2013, C. Adam, R. Heuer, W. Lenhardt and C. Schranz (eds), pp 1-8 (2013).

[283] - E. Capiez-Lernout, C. Soize, M. Mignolet, Computational nonlinear stochastic dynamics with model uncertainties and nonstationary stochastic excitation, 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), Columbia University, New York City, June 16-20, 2013. Proceedings of ICOSSAR 2013, pp. 1-8 (2013).

[282] - E. Capiez-Lernout, C. Soize, M. Mignolet, Nonlinear stochastic dynamics for post-buckling analysis of uncertain cylindrical shells, International Conference on Recent Advances in Structural Dynamics, RASD 2013, University of Pisa, Pisa, Italy, 1-3 July 2013. Proceedings of RASD 2013, pp. 1-15 (2013).

[281] - R. Cottereau, D. Clouteau, C. Soize, Y. Le Guennec, A coupling method for stochastic continuum models at different scales, CSMA 2013, Actes du 11e Colloque National en Calcul des Structures, Presqu'île de Giens (Var) Giens (Var), 13-17 Mai, 2013.

[280] - R. Cottereau, Y. Le Guennec, D. Clouteau, C. Soize, A coupling method for stochastic continuum models at different scales, USNCCM XII 2013, 12th U.S. National Congress on Computational Mechanics, Raleigh, North Carolina, July 22-25, 2013.

[279] - R. Cottereau, Y. Le Guennec, D. Clouteau, C. Soize, A coupling method for stochastic models at different scales, IUTAM Symposium on MultiScale Modeling and Uncertainty Quantification of Materials and Structures, Santorini Island, Greece, September 9-13, 2013.

[278] - A. Cunha Jr, C. Soize, R. Sampaio, A deterministic approach to analyze the nonlinear dynamics of a horizontal drillstring, 12th Conference Dynamical Systems - Theory and Applications (DSTA 2013), Lodz, Poland, December 2-5, 2013.

[277] - C. Desceliers, M.-T. Nguyen, C. Soize, Identification of a prior probabilistic mesoscale model with experimental multiscale observations of one specimen under external loads, USNCCM XII 2013, 12th U.S. National Congress on Computational Mechanics, Raleigh, North Carolina, July 22-25, 2013.

[276] - C. Funfschilling, G. Perrin, C. Soize, D. Duhamel, Dynamical behavior of trains excited by a non-Gaussian vector-valued random fields, ECCOMAS Thematic Conference on Multibody Dynamics 2013, University of Zagreb, Croatia, July 1-4, 2013.

[275] - J. Guilleminot, C. Soize, Generation of non-Gaussian tensor-valued random fields using an ISDE-based algorithm, 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), Columbia University, New York City, June 16-20, 2013. Proceedings of ICOSSAR 2013, pp. 1-6 (2013).

[274] - T. T. Le, J. Guilleminot, C. Soize, Modélisation probabiliste des effets de surface pour des matériaux nano-renforcés, Actes du 21ème Congrès Français de Mécanique 2013 (CFM 2013), pp. 1-6, Bordeaux, France, 26-30 Août, 2013.

[273] - Y. Le Guennec, R. Cottereau, D. Clouteau, C. Soize, A coupling method for stochastic continuum models at different scales, 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), Columbia University, New York City, June 16-20, 2013. Proceedings of ICOSSAR 2013, pp. 1-8 (2013).

[272] - N. Lestoilles, C. Soize, G. Perrin, C. Funfschilling, Track geometry degradation under effect of the train dynamics, International Workshop on Railway Track Science and Engineering, Paris, December 5-6, 2013.

[271] - R. Lima, R. Sampaio, C. Soize, Nonlinear stochastic dynamics of a vibro-impact electromechanical system, USNCCM XII 2013, 12th U.S. National Congress on Computational Mechanics, Raleigh, North Carolina, July 22-25, 2013.

[270] - R. Lima, R. Sampaio, C. Soize, A vibro-impact electromechanical system: models of the random dynamics of an embarked pendulum, 22nd International Congress of Mechanical Engineering (COBEM 2013), Ribeirão Preto, SP, Brazil, November 3-7, 2013. Proceedings of COBEM 2013, ABCM, pp. 1-10 (2013).

[269] - S. Naili, V.-H. Nguyen, M.-B. Vu, C. Desceliers, C. Soize, Ultrasound wave propagation in a stochastic cortical bone plate, The Fifth International Conference on Knowledge and Systems Engineering (KSE 2013), Hanoi, Vietnam, October 17-19, 2013. Proceedings of KSE 2013, Springer, pp. 1-8 (2013).

[268] - M.-T. Nguyen, C. Desceliers, C. Soize, Identification of a mesoscale model with multiscale experimental observations, Symposium on Multiscale modeling and uncertainty quantification of materials and structures, Santorini Island, Greece, September 9-11, 2013. Proceedings of the IUTAM Symposium, Multiscale Modeling and Uncertainty Quantification of Materials and Structures, pp. 1-13, Editors M. Papadrakakis and G. Stefanou, Springer (2013).

[267] - M.-T. Nguyen, C. Desceliers, C. Soize, Méthodologie d'identification du modèle probabiliste mésoscopique du champ de tenseur d'élasticité pour des microstructures complexes avec des mesures aux échelles mésoscopiques et macroscopiques, CSMA 2013, Actes du 11e Colloque National en Calcul des Structures, Presqu'île de Giens (Var) Giens (Var), 13-17 Mai, 2013.

[266] - R. Ohayon, R. Sampaio, C. Soize, Dynamic substructuring of structural systems with dissipative physical interface, 22nd International Congress of Mechanical Engineering (COBEM 2013), Ribeirão Preto, SP, Brazil, November 3-7, 2013. Proceedings of COBEM 2013, ABCM, pp. 1-4 (2013).

[265] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Dynamical behavior of trains excited by a non-Gaussian vector-valued random field, COMPDYN 2013, 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos Island, Greece, June 12-14, 2013. Proceedings of COMPDYN 2013, M. Papadrakakis, V. Papadopoulos, V. Plevris (eds.), pp. 1-14 (2013).

[264] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Statistical inverse problems for non-Gaussian vector valued random fields with a set of experimental realizations, 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), Columbia University, New York City, June 16-20, 2013. Proceedings of ICOSSAR 2013, pp. 1-7 (2013).

[263] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Karhunen-Loève based sensitivity analysis, International Workshop on Uncertainty Quantification in Fluids Simulation (BOQUSE 2013), Bordeaux, December 16-18, 2013. Proceedings of BOQUSE 2013, pp. 1-3 (2013).

[262] - T. Ritto, C. Soize, F.A. Rochinha, R. Sampaio, Stability and response analysis of a pipe with internal flow analyzed with an uncertain computational model, COMPDYN 2013, 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos Island, Greece, June 12-14, 2013. Proceedings of COMPDYN 2013, M. Papadrakakis, V. Papadopoulos, V. Plevris (eds.), pp. 1-14 (2013).

[261] - V. Sansalone, S. Naili, C. Soize, C. Desceliers, Stochastic multiscale modeling of elastic properties of bone ultrastructure, 38ème Congrès de la Société Biomécanique (SB 2013), Marseille Luminy, September 3-6, 2013. Proceedings of SB 2013 published in *Computer Methods in Biomechanics and Biomedical Engineering*, doi:10.1080/10255842.2013.815969, vol. 16(S1), pp. 334-336 (2013).

[260] - V. Sansalone, S. Naili, C. Soize, C. Desceliers, A stochastic homogenization approach to estimate bone elastic properties, 5th Asia Pacific Congress on Computational Mechanics (ACOMP & ISCM 2013), Singapore, December 11-14, 2013.

[259] - X.Q. Wang, R. A. Perez, M. P. Mignolet, R. Capillon, C. Soize, Nonlinear reduced order modeling of complex wing models, 54th AIAA/ASME/ASCE/AHS/ ASC Structures, Structural Dynamics, and Materials Conference and Co-located Events, Boston, Massachusetts, USA, April 8-11, 2013. Proceedings of the Conference AIAA-SDM 2013-1520, https://doi.org/10.2514/6.2013-1520, pp. 1-14 (2013).

**2012**

[258] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Stochastic reduced-order model for dynamical structures having a high modal density in the low frequency range, International Symposium on Computational Modelling and Analysis of Vehicle Body Noise and Vibration, in the Proceedings of the International Symposium, pp. 1-10, University of Sussex, Brighton, UK, March 27-28, 2012.

[257] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Stochastic reduced-order model for dynamical structures having a high modal density in the low-frequency range, Congress on Computational Methods in Applied Sciences and Engineering

(ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[256] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Stochastic reduced-order model for an automotive vehicle in presence of numerous local elastic modes in the low-frequency range, International Conference on Uncertainty in Structural Dynamics, USD2012, Katholieke Universiteit Leuven, Belgium, September 17-19, 2012. Proceedings of ISMA2012 - USD2012, pp. 4479-4488, KU Leuven, Belgium (2012).

[255] - A. Batou, C. Soize, Construction and identification of a prior stochastic model for an uncertain rigid body, First ECCOMAS Young Investigators Conference (YIC 2012), Aveiro, Portugal, 24–27 April, 2012. Proceedings of YIC 2012, pp. 1-9, A. Andrade-Campos, N. Lopes, R.A.F. Valente, H. Varum (editors), Universidade de Aveiro, Portugal (2012).

[254] - A. Batou, C. Soize, Stochastic reduced-order model for dynamical structures with high modal density in the low-frequency range, 1st International Symposium on Uncertainty Quantification and Stochastic Modeling (Uncertainties 2012), Maresias, SP, Brazil, February 27 - March 02, 2012. Proceedings of Uncertainties 2012, pp. 1-6, University of São Paulo - ABCM - SBMAC (2012).

[253] - A. Batou, C. Soize, A prior probabilistic model for multibody dynamical systems with uncertain rigid bodies, ACMD 2012, 6th Asian Conference on Multibody Dynamics, Shanghai, Jao-Tong University, August 26-30, 2012. Proceedings of ACMD 2012 Conference, pp. 1-7, Jao-Tong University (2012).

[252] - A. Batou, C. Soize, Stochastic reduced-order model for complex beam-like dynamical structures, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[251] - A. Batou, C. Soize, N. Brie, Reduced-order model for nonlinear dynamical structures having numerous local elastic modes in the low-frequency range, International Conference on Noise and Vibration Engineering, ISMA 2012, Katholieke Universiteit Leuven, Belgium, September 17-19, 2012. Proceeding of ISMA2012 - USD2012, pp. 3417-3426, KU Leuven, Belgium (2012).

[250] - E. Capiez-Lernout, C. Soize, M.-P. Mignolet, Uncertainty quantification in computational nonlinear elasticity, ASME 2012 11th Biennal Conference on Engineering Systems Design and Analysis, ESDA 2012, Ecole Centrale de Nantes, Nantes, France, July 2-4, 2012. Proceedings of ASME 2012 11th Biennal Conference on Engineering Systems Design and Analysis, ESDA 2012, paper ESDA2012-82246, pp. 1-10, American Society of Mechanical Engineers (ASME), New York, USA (2012).

[249] - E Capiez-Lernout, C. Soize, M. Mignolet, Uncertainty quantification for post-buckling analysis of cylindrical shells with experimental comparisons, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[248] - E. Caltaldo, C. Soize, R. Sampaio, A computational method for updating a probabilistic model of an uncertain parameter in a voice production model, 1st International Symposium on Uncertainty Quantification and Stochastic Modeling (Uncertainties 2012), Maresias, SP, Brazil, February 27 - March 02, 2012. Proceedings of Uncertainties 2012, pp. 1-8, University of São Paulo - ABCM - SBMAC (2012).

[247] - E. Cataldo, C. Soize, R. Sampaio, Updating the probabilistic density function related to an uncertain parameter of a model for producing voice, using Bayesian approach, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of ECCOMAS 2012, e-Book Full Papers 2012, pp. 1769-1780, Vienna University of Technology, Vienna (2012).

[246] - E. Cataldo, C. Soize, R. Sampaio, Using Bayesian method for updating the probability density function related to the tension parameter in a voice production model, European Society of Biomechanics (ESB2012), Lisbon, Portugal, July 1-4, 2012.

[245] - A. Clément, C. Soize, J. Yvonnet, Computational nonlinear stochastic homogenization using a non-concurrent multiscale approach for hyperelastic heterogeneous microstructures analysis, SIAM Conference on Uncertainty Quantification, Raleigh Marriot Center City, Raleigh, North Carolina, USA, April 2-4, 2012.

[244] - A. Clément, C. Soize, J. Yvonnet, High-dimension polynomial chaos expansions of effective constitutive equations for hyperelastic heterogeneous random microstructures, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[243] - A. Clément, C. Soize, J. Yvonnet, Computational nonlinear stochastic homogenization of hyperelastic heterogeneous materials in high dimensions, Euromech 537, Multi-scale Computational Homogenization of Heterogeneous Structures and Materials, Université Paris-Est Marne-la-Vallée, March 26-28, 2012.

[242] - C. Desceliers, C. Soize, S. Naili, G. Haiat, Experimental identification of a priori tensor-valued random field for the elasticity properties of cortical bones using in vivo ultrasonic measurements, pp. 1-5 in the Proceedings of Acoustics 2012, Joint conference of the 2012 Annual IOA Meeting and the 11th French Congress of Acoustics, Nantes, France, April 23-27, 2012.

[241] - J. Guilleminot, C. Soize, Recent advances in prior probabilistic representations for non-Gaussian mesoscale random fields of apparent properties, Euromech 537, Multi-scale Computational Homogenization of Heterogeneous Structures and Materials, Université Paris-Est Marne-la-Vallée, March 26-28, 2012. Proceedings of Euromech 537, pp. 1-2, Université Paris-Est Marne-la-Vallée (2012).

[240] - J. Guilleminot, C. Soize, Prior representations of random fields for stochastic multiscale modeling, IUTAM Symposium on Multiscale Problems in Stochastic Mechanics, Karlsruhe, Germany, June 25-29, 2012. Procedia IUTAM, Elsevier, Vol. 6, pp. 44-49 (2013).

[239] - J. Guilleminot, C. Soize, A nonparametric stochastic model for non-Gaussian random fields with SO(n,R)-invariance, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[238] - M.-T. Nguyen, C. Desceliers, C. Soize, Identification of an elasticity-tensor random field at mesoscopic scale using experimental measurements at mesoscopic and macroscopic scales for complex hierarchical microstructures, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[237] - G. Perrin, D. Duhamel, C. Soize, C. Funfschilling, Identification of polynomial chaos representations in high dimension, SIAM Conference on Uncertainty Quantification, Raleigh Marriott Center City, Raleigh, North Carolina, USA, April 2-4, 2012.

[236] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Modeling the track geometry variability, 10th World Congress on Computational Mechanics (WCCM), São Paulo, Brazil, July 8-13, 2012. Proceedings of WCCM 2012, pp. 1-11, University of São Paulo (2012).

[235] - G. Perrin, C. Soize, D. Duhamel, C. Funfschilling, Influence of the track geometry variability on the train behavior, Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012. Proceedings of long abstracts of ECCOMAS 2012, pp. 1-2, Vienna University of Technology, Vienna (2012).

[234] - C. Soize (Invited Keynote Lecture), Advanced methodologies for the identification of stochastic models in computational mechanics. Case of uncertainty quantification for dynamical systems and case of mesoscale elasticity random fields for heterogeneous microstructures, 1st International Symposium on Uncertainty Quantification and Stochastic Modeling (Uncertainties 2012), Maresias, SP, Brazil, February 27 - March 02, 2012.

**2011**

[233] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Reduced-order model for dynamical structures having numerous local modes in the low frequency range, Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, Leuven, Belgium, 4-6 July 2011, G. De Roeck, G. Degrande, G. Lombaert, G. M¨uller (eds.), pp. 2609-2614, ISBN 978-90-760-1931-4, July 4-6, 2011.

[232] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Modèle réduit en dynamique stochastique d'une structure ayant de nombreux modes locaux en basse fréquence, CSMA 2011, Actes du 10ème Colloque National en Calcul des Structures, pp. 1-8, Giens (Var), 9-13 Mai, 2011.

[231] - A. Arnoux, A. Batou, C. Soize, L. Gagliardini, Modèle réduit en dynamique vibratoire basse et moyenne fréquence pour des structures mécaniques complexes, Actes du 20ème Congrès Français de Mécanique 2011, pp. 1-6, Besançon, France, 28 Août - 2 Septembre, 2011.

[230] - A. Batou, C. Soize, Random dynamical response of a multibody system with uncertain rigid bodies, COMPDYN 2011, ECCOMAS Thematic Conference on Computational methods in structural dynamics and earthquake engineering,

Corfu, Greece, May 26-28, 2011. Proceedings of COMPDYN 2011, M. Papadrakakis, M. Fragiadakis, V. Plevris (eds.), pp. 1-11 (2011).

[229] - A. Batou, C. Soize, Stochastic model for an uncertain rigid body of a multibody dynamical system, 6th MIT Conference on Computational Fluid and Solid Mechanics, Advances in Solids and Structures, Massachusetts Institute of Technology, Cambridge, Massachusetts,USA, June 15-17, 2011.

[228] - A. Batou, C. Soize, Multibody system dynamics with uncertain rigid bodies, Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, Leuven, Belgium, July 4-6, 2011, G. De Roeck, G. Degrande, G. Lombaert, G. M¨uller (eds.), pp. 2620-2625 (2011), ISBN 978-90-760-1931-4.

[227] - A. Batou, C. Soize, A probabilistic approach for multibody dynamical system with uncertain rigid body, Multibody Dynamics 2011, ECCOMAS Thematic Conference, Université Catholique de Louvain (UCL), Brussels, Belgium, July 4-7, 2011. Proceedings of Multibody Dynamics 2011, pp. 1-12, J.C. Samin, P. Fisette (eds.), IMMCE-UCL, Louvain-la-Neuve, Belgium (2011).

[226] - A. Batou, C. Soize, Stochastic reduced-order model for quasi-periodic beam structures having numerous local elastic modes in the low-frequency range, The 18th International Congress on Sound and Vibration (ICSV 18), Rio de Janeiro, Brazil, July 10-14, 2011. Proceedings of ICSV 18, pp. 1-8, The International Institute of Acoustics and Vibration (2011).

[225] - A. Batou, C. Soize, Multibody system dynamics with uncertain rigid bodies, USNCCM XI 2011, Eleventh U. S. National Congress on Computational Mechanics, University of Minnesota, Minneapolis, Minnesota, USA, July 25 - 29, 2011.

[224] - E. Capiez-Lernout, C. Soize, M.P. Mignolet, Effects of structural uncertainties on the nonlinear elastic post-buckling behavior of a cylindrical shell. Stochastic computational modeling and comparison with experiments, Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, Leuven, Belgium, July 4-6, 2011, G. De Roeck, G. Degrande, G. Lombaert, G. M¨uller (eds.), pp. 2682-2689 (2011), ISBN 978-90-760-1931-4.

[223] - Y.-W. Chang , X.Q. Wang, E. Capiez-Lernout, M.P. Mignolet, C. Soize C., Reduced order modelling for the nonlinear geometric response of some curved structures, International Forum on Aeroelasticity and Structural Dynamics, IFASD 2011, Paris, France, June 26-30, 2011. Proceedings of IFASD 2011, paper IFASD-2011-185, pp. 1-19, AAAF-AIAA (2011).

[222] - B.-K. Choi, M.C. Sipperley, M.P. Mignolet, C. Soize, Discrete maximum entropy process modeling of uncertain properties: application to friction for stick-slip and microslip response, Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, Leuven, Belgium, July 4-6, 2011, G. De Roeck, G. Degrande, G. Lombaert, G. M¨uller (eds.), pp. 2626-2633 (2011), ISBN 978-90-760-1931-4.

[221] - A. Clément, C. Soize, J. Yvonnet, A stochastic multiscale approach to deal with the homogenization of random nonlinear heterogeneous materials defined in high dimensional parameters space, 6th MIT Conference on Computational Fluid and Solid Mechanics, Advances in Solids and Structures, Massachusetts Institute of Technology, Cambridge, Massachusetts,USA, June 15-17, 2011.

[220] - A. Clément, C. Soize, J. Yvonnet, A stochastic parametric multiscale approach to deal with the homogenization of random nonlinear heterogeneous materials, USNCCM XI 2011, Eleventh U. S. National Congress on Computational Mechanics, University of Minnesota, Minneapolis, Minnesota, USA, July 25 - 29, 2011.

[219] - A. Clément, J. Yvonnet, C. Soize, Une méthode multi échelles stochastique en grande dimension pour l'homogénéisation de matériaux hétérogènes non linéaires, CSMA 2011, Actes du 10ème Colloque National en Calcul des Structures, pp. 1-2, Giens (Var), 9-13 Mai, 2011.

[218] - C. Desceliers, C. Soize, S. Naili, Q. Grimal, M. Talmant, Identification of the probabilistic model for a non-homogeneous cortical bone using in vivo measurements in ultrasonic range, 6th MIT Conference on Computational Fluid and Solid Mechanics, Advances in Solids and Structures, Massachusetts Institute of Technology, Cambridge, Massachusetts,USA, June 15-17, 2011.

[217] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Experimental identification in the ultrasonic range of a probabilistic model for a non-homegeneous cortical bone, USNCCM XI 2011, Eleventh U. S. National Congress on Computational Mechanics, University of Minnesota, Minneapolis, Minnesota, USA, July 25 - 29, 2011.

[216] - C. Desceliers, C. Soize, S. Naili, Identification du modèle probabiliste de l'os cortical en utilisant des mesures expérimentales ultrasonique in vivo, Actes du 20ème Congrès Français de Mécanique 2011, pp. 1-6, Besançon, France, 28 Août - 2 Septembre, 2011.

[215] - J. Guilleminot, C. Soize, MaxEnt approach for the probabilistic modeling of matrix-valued random fields with constrained eigenvalues: application to apparent mechanical and transport properties, 6th MIT Conference on Computational Fluid and Solid Mechanics, Advances in Solids and Structures, Massachusetts Institute of Technology, Cambridge, Massachusetts,USA, June 15-17, 2011.

[214] - J. Guilleminot, C. Soize, Stochastic model for matrix-valued random fields with constrained eigenvalues: application to stochastic elasticity and permeability tensors, USNCCM XI 2011, Eleventh U. S. National Congress on Computational Mechanics, University of Minnesota, Minneapolis, Minnesota, USA, July 25 - 29, 2011.

[213] - J. Guilleminot, C. Soize (Keynote présentée par J. Guilleminot), Construction de représentations stochastiques par la Théorie de l'Information: application à la modélisation du tenseur d'élasticité apparent pour les microstructures aléatoires, Actes du 20ème Congrès Français de Mécanique 2011, pp. 1-6, Besançon, France, 28 Août - 2 Septembre, 2011.

[212] - G. Perrin, D. Duhamel, C. Soize, C. Funfschilling, Track irregularities stochastic modelling, CC2011, The Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing, Chania, Crete, Greece, 6-9 September 2011. Proceedings of CC2011, pp. 1-16, Civil-Comp Ltd (Civil-Comp Press & Saxe-Coburg Publications) (2011).

[211] - C. Soize, A Challenging problem: Identification of Bayesian posteriors of high-dimension polynomial chaos expansions of random fields using partial and limited experimental data, USNCCM XI 2011, Eleventh U. S. National Congress on Computational Mechanics, University of Minnesota, Minneapolis, Minnesota, USA, July 25 - 29, 2011.

[210] - C. Soize (Conférence invitée), Modélisation probabiliste et identification en grande dimension de champs de tenseurs aléatoires non gaussiens par problème inverse avec des données partielles au travers de problèmes aux limites - Application à l'élasticité tridimensionnelle, Colloque "Rencontre Mathématiques - Mécanique", Actes du 20ème Congrès français de mécanique 2011, pp. 1-10, Besançon, France, 28 Août - 2 Septembre, 2011.

[209] - C. Soize (Keynote Lecture), Identification of high-dimension polynomial chaos expansions of tensor-valued random fields from limited observed responses of boundary value problems, ECCOMAS Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering (ECCM-2010), Paris, May 16-21, 2010.

[208] - Invited Lecture (presented by C. Soize), X.Q. Wang, M.P. Mignolet, C. Soize, V. Khannav, Stochastic reduced order models for uncertain infinite-dimensional geometrically nonlinear dynamical system - Stochastic excitation cases, IUTAM Symposium on Nonlinear Stochastic Dynamics and Control, Zhejiang Univ, Hangzhou, China, May 10-14, 2010. IUTAM Bookseries, Eds Zhu W.Q., Lin Y.K., Cai G.Q., Vol 29, pp. 293-302 (2011), doi:10.1007/978-94-007-0732-0-29.

**2010**

[207] - A. Batou, C. Soize, Stochastic reduced-order model for dynamical structures having numerous local elastic modes in the low-frequency range, ECCOMAS Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering (ECCM-2010), Paris, May 16-21, 2010.

[206] - A. Batou, C. Soize, Stochastic reduced-order model in low frequency dynamics in presence of numerous local elastic modes, RASD 2010 - 10th International Conference on Recent Advances in Structural Dynamics, Southampton, 12 - 14 July, 2010. Proceedings of RASD 2010, pp. 1-10, University of Southampton (2010).

[205] - A. Batou, C. Soize, M. Corus, Construction and experimental identification of an uncertain model in computational dynamics using a generalized probabilistic approach of uncertainties, Third International Conference on Uncertainty in Structural Dynamics, USD2010, Katholieke Universiteit Leuven, Belgium, September 20-22, 2010. Proceedings of USD 2010, pp. 1-8, KU Leuven (2010).

[204] - E. Cataldo, R. Sampaio, C. Soize, Prior and posterior probabilistic models of uncertainties in a model for producing voice, 9th World Congress on computational Mechanics and 4th Asian Pacific Congress on Computational Mechanics, Sydney, Australia, July 19-23, 2010. Proceedings, Editors: N. Khalili, S. Valliappan, Q. Li et al. Book Series: IOP Conference Series-Materials Science and Engineering, Vol 10, Article Number: 012195 (2010), doi: 10.1088/1757-899X/10/1/012195.

[203] - C. Desceliers, C. Soize, Q. grimal, M. Talmant, S. Naili, Identification of the probabilistic model for a nonhomegeneous cortical bone using in vivo measurements in ultrasonic range, ECCOMAS Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering (ECCM-2010), Paris, May 16-21, 2010.

[202] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Probabilistic model of human cortical bones with uncertain mechanical properties: Modelling and identification with experimental measurements in ultrasonic range, Sixth International Conference on Computational Stochastic Mechanics, Rhodos, Greece, June 13-16, 2010. Published in *Computational Stochastic Mechanics*, Edited by G. Deodatis and P. D. Spanos, Research Publishing : www.rpsonline.com.sg, ISBN: 978-981-08-7619-7, doi:10.3850/978-981-08-7619-7 P022, pp. 206-212 (2011).

[201] - C. Desceliers, C. Soize, S. Naili, Q. Grimal, M. Talmant, Probabilistic model of the human cortical bone with mechanical alterations in ultrasonic range, Third International Conference on Uncertainty in Structural Dynamics, USD2010, Katholieke Universiteit Leuven, Belgium, September 20-22, 2010. Proceedings of USD 2010, pp. 1-7, KU Leuven (2010).

[200] - L. Gagliardini, J.-F. Durand, C. Fernandez, M. Kassem, C. Soize, Modélisation non-paramétrique des incertitudes en vibroacoustique appliquée aux automobiles, Actes du 10ème Congrès Français d'Acoustique, pp. 1-5, Lyon, 12-16 Avril, 2010.

[199] - L. Gagliardini, M. Kassem, C. Soize, A partitioning methodology of complex uncertain structural-acoustic systems in the low and medium frequency ranges, International Conference on Noise and Vibration Engineering, ISMA 2010, Katholieke Universiteit Leuven, Belgium, September 20-22, 2010. Proceedings of ISMA 2010, pp. 1-11, KU Leuven (2010).

[198] - J. Guilleminot, C. Soize, A stochastic model for elasticity tensors exhibiting uncertainties on material symmetries, Sixth International Conference on Computational Stochastic Mechanics, Rhodos, Greece, June 13-16, 2010. Published in *Computational Stochastic Mechanics*, Edited by G. Deodatis and P. D. Spanos, Research Publishing : www.rpsonline.com.sg, ISBN: 978-981-08-7619-7, doi:10.3850/978-981-08-7619-7 P032, pp. 298-303 (2011).

[197] - J. Guilleminot, C. Soize, On mesoscopic probabilistic modeling of random anisotropic media under material symmetry constraints, 16th US National Congress of Theoretical and Applied Mechanics, USNCTAM 2010, State College, University Park, PA, USA, June 27 - July 2, 2010. Proceedings of USNCTAM 2010, USNCTAM2010-476-1, ASME (2010).

[196] - J. Guilleminot, C. Soize, On nonparametric stochastic modeling of elasticity tensors based on material symmetry constraints, EMI 2010, Engineering Mechanics Institute 2010, USC, Los Angeles, August 8-10, 2010.

[195] - M. Mbaye, C. Soize, J.-P. Ousty, Conception robuste des roues aubagées désaccordées, Actes du XVIIème colloque Vibrations, Chocs et Bruits, pp. 1-14, ECL Lyon, 15-17 Juin, 2010.

[194] - S. Naili, M.-B. Vu, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, G. Haïat, Influence de l'absorption viscoelastique et visqueuse sur la propagation ultrasonore dans l'os cortical : application à la transmission axiale, Actes du 10ème Congrès Français d'Acoustique, pp. 1-5, Lyon, 12-16 Avril, 2010.

[193] - T. Ritto, C. Soize, R. Sampaio, Drill-string with uncertainty in the bit-rock interaction, 11th Pan-American Congress of Applied Mechanics - PACAM XI, Foz do Ignacu, PR, Brazil, January 04-08, 2010. Proceedings of PACAM XI, pp. 1-6, ABCM (2010).

[192] - T. Ritto, C. Soize, R. Sampaio, Probabilistic model identification of uncertainties for the bit-rock interaction model (local nonlinearity) of a drill-string system, ECCOMAS Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering (ECCM-2010), Paris, May 16-21, 2010.

[191] - T. Ritto, C. Soize, R. Sampaio, Stochastic identification using the maximum likelihood method and a statistical reduction: application to drilling dynamics, MECOM 2010 (IX Argentinean Congress on Computational Mechanics y II South American Congress on Computational Mechanics) and CILAMCE 2010 (XXXI Iberian-Latin-American Congress on Computational Methods in Engineering), Buenos Aires, Argentina, November 15-18, 2010. Proceedings of MECOM and CILAMCE 2010, pp.1-11 (2010), ISSN 1666-6070.

[190] - C. Soize (Invited Opening Keynote Lecture), Generalized probabilistic approach of uncertainties in computational dynamics, First International Symposium IMPACT 2010 on "Dynamic of Systems, Materials and Structures", Djerba, Tunisie, March 22-24, 2010. Proceedings of IMPACT 2010, pp.1-13, Ecole Centrale Lyon (2010).

**2009**

[189] - J. Avalos, M.P.Mignolet, C. Soize, Response of bladed disks with mistuned blade-disk interfaces. 54th ASME Turbo Expo 2009, Orlando, Florida, USA, June 8-12, 2009. Proceedings of the ASME turbo expo 2009, Vol 6, Pts A and B, pp. 323-332 (2009).

[188] - A. Batou, C. Soize, Experimental identification of stochastic loads using a nonlinear dynamical system coupled with an uncertain linear system, Coupled problems 2009, pp. 1-6, Proceedings of the International Conference on Computational Methods for Coupled Problems in Science and Engineering, Ischia Island, Italy, June 8-10, 2009, B.Schrefler, E. Onate and M. Papadrakakis (Eds), CIMNE, Barcelona (2009).

[187] - A. Batou, C. Soize, Experimental identification of turbulent fluid forces applied to fuel assemblies using an uncertain model and estimation of the fretting-wear, pp. 1-7, Proceedings of COMPDYN 2009, ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, N.D. Lagaros, M. Fragiadakis (eds.), Rhodes, Greece, 22-24 June, 2009.

[186] - A. Batou, C. Soize, Experimental identification of turbulent fluid forces applied to fuel assemblies using an uncertain model, USNCCM X 2009,Tenth U. S. National Congress on Computational Mechanics, Columbus, Ohio, USA, July 16-19, 2009.

[185] - E. Capiez-Lernout, C. Soize, R. Ohayon, Modal analysis updating with an uncertain computational dynamical model and with experiments, pp. 1-8, Proceedings of the IMAC XXVII conference, Orlando, Florida, USA, February 9-12, 2009.

[184] - E. Cataldo, R. Sampaio, C. Soize, J. Lucero, Modelling the voice production process using a nonparametric approach, pp. 1-12, Proceedings of COMPDYN 2009, ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, N.D. Lagaros, M. Fragiadakis (eds.), Rhodes, Greece, 22-24 June, 2009.

[183] - C. Desceliers, C. Soize, S. Naili, Q. Grimal, M. Talmant, Stochastic inverse problem for the identification of the probabilistic model of cortical bone using measurements in ultrasonic range, pp. 1-7, Proceedings of NOVEM 2009, Noise and Vibration: Emerging Methods, Klebe College, Oxford, England, April 5-8, 2009.

[182] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Identification of a probabilistic model of the geometrical and mechanical properties for a nonhomegeneous cortical bone using in vivo measurements in ultrasonic range, pp. 1-7, proceedings of the 16th International Congress on Sound and Vibration (ICSV16), Krakow, Poland, July 5-9, 2009.

[181] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Probabilistic model of the geometrical and mechanical properties for nonhomegeneous cortical bone using in vivo measurements in ultrasonic range, USNCCM X 2009, Tenth U. S. National Congress on Computational Mechanics, Columbus, Ohio, USA, July 16-19, 2009.

[180] - T.T. Do, C. Soize, J.-V. Heck, Probabilistic model and experimental identification' of screw-attachment in plasterboards., Fourth International Conference on Computational Methods and Experiments in Materials Characterisation, New Forest, England, 17-19 June 2009. Proceedings: Materials Characterisation iv: Computational Methods and Experiments, Book Series: WIT Transactions on Engineering Sciences, Vol 64, pp. 115-123 (2009) doi: 10.2495/MC090111.

[179] - T.T. Do, C. Soize, J.-V. Heck, Constitutive equation for the screw-attachment in plasterboards. Probabilistic model and its experimental identification, 7th EUROMECH Solid Mechanics Conference (ESMC2009), Instituto Superior Técnico, Lisbon, Portugal, September 7-11, 2009.

[178] - J. Foiret, Q. Grimal, M. Talmant, R. Longo, S. Naili, C. Desceliers, C. Soize, P. Laugier, Axial transmission measurements and compact bone heterogeneity, 3rd European symposium on ultrasonic characterization of bone (ESUCB 09), Bydgoszcz, Poland, September 17-18, 2009.

[177] - L. Gagliardini, M. Kassem, C. Soize, Energy density field approach for low- and medium-frequency vibroacoustic analysis of a car body using a probabilistic computational model, pp. 09NVC-0248: 1-5, Proceedings of SAE 2009 world congress, Detroit, Michigan, USA, April 20-23, 2009.

[176] - L. Gagliardini, C. Fernandez, C. Soize, Sound-insulation layers low-frequency modeling, using the fuzzy structure theory, in the Proceedings of SAE 2009, paper 09NVC-0163, pp.1-7, 2009, SAE 2009 world congress, Detroit, Michigan, USA, April 20-23, 2009.

[175] - J. Guilleminot, C. Soize, D. Kondo, C. Binetruy, Probabilistic modeling of the elasticity tensor random field at the mesoscale of reinforced composites, USNCCM X 2009, Tenth U. S. National Congress on Computational Mechanics, Columbus, Ohio, USA, July 16-19, 2009.

[174] - J. Guilleminot, C. Soize, D. Kondo, C. Binetruy, Stochastic modeling of the mesoscopic elasticity tensor random field for composite materials, 17th International Conference on Composite Materials (ICCM), Edinburgh International Conference Centre, Edinburgh, UK, July 27-31, 2009. Proceedings of the 17th International Conference on Composite Materials (ICCM), pp. 1-2, University of Edinburgh, 2009.

[173] - G. Haïat, S. Naili, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, Modeling wave propagation in an inhomogeneous anisotropic fluid/solid multilayer medium: application to cortical bone ultrasonic characterization with axial transmission, ICU, International Congress on Ultrasonics, Universidad de Santiago de Chile, January 11-17, 2009.

[172] - G. Haiat, S. Naili, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, Finite element model of the ultrasonic propagation in cortical bone: application to the axial transmission device. Actes du 19ème Congrès français de mécanique 2009, pp. 1-6, Marseille, France, 24 Août - 28 Août, 2009.

[171] - G. Haïat, S. Naili, M.-B. Vu, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, Time-domain model of the ultrasonic wave propagation in an inhomogeneous anisotropic viscoelastic fluid/solid multilayer medium: application to cortical bone, pp.1-4 in the Proceedings of the 2009 IEEE International Ultrasonics Symposium, Rome, September 20-23, 2009.

[170] - G. Haïat, S. Naili, M.-B. Vu, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, Influence of viscoelasticity on the ultrasonic wave propagation in cortical bone: application to the axial transmission technique, 158th ASA Meeting, San Antonio, Texas, October 26-30, 2009.

[169] - M. Kassem, C. Soize, L. Gagliardini, An energy-based automatic sub-structuring method in low- and medium-frequency ranges for uncertain computational vibroacoustic model, pp. 1-10, Proceedings of NOVEM 2009, Noise and Vibration: Emerging Methods, Klebe College, Oxford, England, April 5-8, 2009.

[168] - M. Kassem, C. Soize, L. Gagliardini, A sub-structuring method in low- and medium-frequency ranges based on an energy formulation and a stochastic vibroacoustic computational model, pp. 1-8, Proceedings of the 2nd International Conference on Uncertainty in Structural Dynamics, The University of Sheffield, Sheffield, UK, June 15-17, 2009.

[167] - M. Kassem, C. Soize, L. Gagliardini, A vibroacoustic energy density field approach for an automatic sub-structuring method of complex structures in low- and medium-frequency ranges, pp. 1-8, Proceedings of the 16th International Congress on Sound and Vibration (ICSV16), Krakow, Poland, July 5-9, 2009.

[166] - M. Kassem, C. Soize, L. Gagliardini, Using an energy method in an uncertain computational vibroacoustic model for an automatic sub-structuring of the structure in low- and medium-frequency ranges, USNCCM X 2009, Tenth U. S. National Congress on Computational Mechanics, Columbus, Ohio, USA, July 16-19, 2009.

[165] - M. Mbaye, C. Soize, J.-P. Ousty, A reduced-order model of mistuned cyclic dynamical systems with finite geometric perturbations using a basis of cyclic modes, pp. 1-9, Proceedings of the XIII International Symposium on Dynamic Problems of Mechanics (DINAME 2009), Almeida, C. A. (Editor), ABCM, Angra dos Reis, RJ , Brazil, March 2nd - March 6th, 2009.

[164] - M. Mbaye, C. Soize, J.-P. Ousty, E. Capiez-Lernout, Robust analysis of design in vibration of turbomachines, 54th ASME Turbo Expo 2009, Orlando, Florida, USA, June 8-12 (2009). Proceedings of the ASME Turbo Expo 2009, Vol 6, Pts A and B, pp. 387-396 (2009).

[163] - T. Ritto, R. Sampaio, C. Soize, Drill-string dynamics coupled with the drilling fluid dynamics, pp. 1-10, Proceedings of the XIII International Symposium on Dynamic Problems of Mechanics (DINAME 2009), Almeida C.A. (Editor), ABCM, Angra dos Reis, RJ, Brazil, March 2nd - March 6th, 2009.

[162] - T. Ritto, C. Soize, R. Sampaio, Stochastic drill-string dynamics - random weight-on-hook (WOH), pp. 1-9, Proceedings of the XIII International Symposium on Dynamic Problems of Mechanics (DINAME 2009), Almeida, C. A. (Editor), ABCM, Angra dos Reis, RJ , Brazil, March 2nd - March 6th, 2009.

[161] - T. Ritto, C. Soize, R. Sampaio, Drill-string dynamics with uncertainty in the bit-rock nonlinear interaction model, pp. 1-10, Proceedings of the 2nd International Conference on Uncertainty in Structural Dynamics, The University of Sheffield, Sheffield, UK, June 15-17, 2009.

[160] - T. Ritto, C. Soize, R. Sampaio, Modeling uncertainties for local nonlinearities: application to the drill-string dynamics, pp. 1-19, Proceedings of COMPDYN 2009, ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, N.D. Lagaros, M. Fragiadakis (eds.), Rhodes, Greece, 22-24 June, 2009.

[159] - T. Ritto, C. Soize, R. Sampaio, Uncertainties in drill-String dynamics: the role of a random weight-on-hook, 2009 ASME International Design Engineering Technical Conferences (IDETC) / Computers and Information in Engineering Conference, San Diego, CA, USA, August 30 - September 2, 2009. Proceedings of the asme international design engineering technical conferences and computers and information in engineering conference, Vol 1, Pt. B, pp. 1351-1360 (2010).

[158] - T. Ritto, R. Sampaio, C. Soize, Drill-string nonlinear dynamics accounting for the drilling fluid, pp. 1-25 in the Proceedings of the 30º CILAMCE -Iberian-Latin-American Congress on Computational Methods in Engineering, Armação dos Búzios, RJ, Brazil, November 08-11, 2009.

[157] - T. Ritto, C. Soize, R. Sampaio, Probabilistic model for the bit-rock interaction model of a drill-string system, COBEM 2009, 20th International Congress of Mechanical Engineering, Gramado-RS, Brazil, November 15-20, 2009. Proceedings of COBEM 2009, pp. 1-10, ABCM (2009).

[156] - M. C. Sipperley, M. P. Mignolet, C. Soize, Effects of uncertainty in friction coefficients on microslip response, USNCCM X 2009, Tenth U. S. National Congress on Computational Mechanics, Columbus, Ohio, USA, July 16-19, 2009.

[155] - C. Soize (Semi-Plenary Lecture), Information Theory for stochastic modeling of uncertainties in high dimension. Application to a new construction of the challenging inverse problem relative to the generation of accelerograms associated with SRS, pp. 1-11, Proceedings of COMPDYN 2009, ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, N.D. Lagaros, M. Fragiadakis (eds.), Rhodes, Greece, 22-24 June, 2009.

[154] - C. Soize (Plenary Lecture), Modélisation probabiliste, identification et propagation des incertitudes dans les modèles numériques des systèmes mécaniques complexes, Actes du 9ème Colloque National en Calcul des Structures, pp. 1-12, Giens (Var), 25-29 Mai 2009.

[153] - P. D. Spanos, Y. Kougioumtzoglou, C. Soize, On the determination of the power spectrum of randomly excited oscillators via stochastic averaging: an alternative perspective, Stochastic Methods in Mechanics: Status and Challenges (SMMSC), Warsaw, Poland, September 17-18, 2009.

**2008**

[152] - A. Batou, C. Soize, Experimental identification of stochastic processes using an uncertain computational non-linear dynamical model, ICIPE 2008, 6th International Conference on Inverse Problems in Engineering: Theory and Practice, Dourdan, France, June 15-19, 2008. Proceedings published in *Journal of Physics: Conference Series*, **135**, 012014-1 to 012014-8, (2008) doi:10.1088/1742-6596/135/1/012014.

[151] - A. Batou, C. Soize, I. Zentner, E. Derocquigny, Uncertain non-linear dynamical system submitted to uncertain stochastic loads, 7th European Conference on Structural Dynamics (EURODYN 2008), Southampton, 7-9 July 2008. Proceedings edited by M.J. Brennan, ISVR, University of Southampton, pp. 1-12 (2008).

[150] - E. Capiez-Lernout, C. Soize, Inverse problems in stochastic computational dynamics, ICIPE 2008, 6th International Conference on Inverse Problems in Engineering: Theory and Practice, Dourdan, France, June 15-19, 2008. Proceedings published in *Journal of Physics: Conference Series*, **135**, 012028-1 to 012028-8, (2008) doi:10.1088/1742-6596/135/1/012028.

[149] - E. Capiez-Lernout, C. Soize, R. Ohayon, Robust updating of uncertain computational models from experimental modal data, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008.

[148] - E. Capiez-Lernout, C. Soize, R. Ohayon, Robust parametric updating of uncertain finite element models from experimental modal analysis, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 15-17, 2008. Proceedings of ISMA 2008: International Conference on Noise and Vibration Engineering, Vols 1-8, pp. 1839-1853 (2008).

[147] - R. Cottereau, M. Arnst, C. Soize, D. Clouteau, Impedance matrix of a random medium from parametric numerical experiments, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008.

[146] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Stochastic inverse problem for the experimental identification in the ultrasonic range of a mechanical model for cortical bones, ICIPE 2008, 6th International Conference on Inverse Problems in Engineering: Theory and Practice, Dourdan,France, June 15-19, 2008. Proceedings published in *Journal of Physics: Conference Series*, **135**, 012036-1 to 012036-8, (2008) doi:10.1088/1742-6596/135/1/012036.

[145] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Identification of the elasticity tensor of an uncertain biomechanical computational model using axial transmission, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008.

[144] - C. Desceliers, C. Soize, Q. Grimal, M. Talmant, S. Naili, Experimental identification in the ultrasonic range of a mechanical model for cortical bones, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 15-17, 2008. Proceedings of ISMA 2008: International Conference on Noise and Vibration Engineering, Vols 1-8, pp. 3777-3785 (2008).

[143] - C. Fernandez, C. Soize, L. Gagliardini, Experimental identification of a stochastic computational model for an uncertain vibroacoustic system, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008

[142] - C. Fernandez, C. Soize, L. Gagliardini, Stochastic computational dynamical model of uncertain structure coupled with an insulation layer modelled by a fuzzy structure - Theory and experimental validation, 7th European Conference on Structural Dynamics (EURODYN 2008), Southampton, 7-9 July 2008. Proceedings edited by M.J. Brennan, ISVR, University of Southampton, pp. 1-10 (2008).

[141] - C. Fernandez, C. Soize, L. Gagliardini, Identification of a sound-insulation layer modelled by fuzzy structure theory - Experimental validation, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 15-17, 2008. Proceedings of ISMA 2008: International Conference on Noise and Vibration Engineering, Vols 1-8, pp. 3801-3815 (2008).

[140] - L. Gagliardini, J.-F. Durand, C. Soize, Stochastic modeling of the vibro-acoustic behavior of production cars, Acoustics'08, Second ASA (Acoustical Society of America) - EAA (European Acoustics Association) joint international conference, Paris, France, June 29 - July 4, 2008, *J. Acoust. Soc. Am.*, **123**(5), 3533 (2008).

[139] - J. Guilleminot, C. Soize, D. Kondo, C. Binetruy, On stochastic homogenization of fiber reinforced composites exhibiting a randomly fluctuating volume fraction, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008

[138] - J. Guilleminot, C. Soize, D. Kondo, C. Benetruy, On modelling reinforced composites exhibiting stochastic fluctuations on volume fraction: a stochastic micromechanical approach, XXII ICTAM, International Congress of Theoretical and Applied Mechanics, Adelaide, Australia, 25-29 August 2008. Proceedings of XXII ICTAM 2008, pp. 1-2, School of Mathematical Sciences, University of Adelaide (2008).

[137] - G. Haïat, S. Naili, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, Finite element modelling of transient elastic wave propagation in an inhomogeneous anisotropic fluid/solid multilayer medium: a time-domain method, Acoustics'08, Second ASA (Acoustical Society of America) - EAA (European Acoustics Association) joint international conference, Paris, France, June 29 - July 4, 2008, *J. Acoust. Soc. Am.*, **123**(5), 3570 (2008).

[136] - G. Haïat, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, S. Naili, Time-domain model of the ultrasonic wave propagation in an inhomogeneous anisotropic fluid/solid multilayer medium: application to cortical bone, 2008 IEEE International Ultrasonics Symposium (IUS), Beijing, China, November 2-5, 2008.

[135] - G. Haïat, Q. Grimal, M. Talmant, C. Desceliers, C. Soize, S. Naili, Finite element model of the ultrasonic propagation in cortical bone: application to the axial transmission device, Anglo French Physical Acoustics Conference 2009, Arcachon, France, December 8 - 10, 2008.

[134] - M. Kassem, C. Soize, L. Gagliardini, An energy-based method for vibroacoustic analysis of complex structures in the low- and medium-frequency ranges, a computational model with uncertainties, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008

[133] - M. Kassem, C. Soize, L. Gagliardini, Low- and medium-frequency vibroacoustic analysis of complex structures using a statistical computational model and an energy density filed formulation, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 15-17, 2008. Proceedings of ISMA 2008: International Conference on Noise and Vibration Engineering, Vols 1-8, pp. 3849-3861 (2008).

[132] - T. Leissing, P. Jean, J. Defrance, C.Soize, Nonlinear parabolic equation model for finite-amplitude sound propagation in an inhomogeneous medium over a non-flat, finite-impedance ground surface, Acoustics'08, Second ASA (Acoustical Society of America) - EAA (European Acoustics Association) joint international conference, Paris, France, June 29 - July 4, 2008, *J. Acoust. Soc. Am.*, **123**(5), 3992 (2008). Proceedings of Acoustics'O8, pp. 1-6, ASA-EAA (2008).

[131] - T. Leissing, P. Jean, J. Defrance, C. Soize, Nonlinear parabolic equation model for finite-amplitude sound propagation over porous ground layers, pp. 1-11, Proceedings of the 13th Long Range Sound Propagation Symposium (LRSPS), Ecole Centrale de Lyon, Ecully, October 16-17, 2008.

[130] - M. P. Mignolet, C. Soize, Nonparametric stochastic modeling of structures with uncertain boundary conditions and uncertain coupling between substructures. LSAME 08, Leuven Symposium on Applied Mechanics in Engineering, Katholieke Univ Leuven, March 31 - April 2, 2008. Proceedings of LSAME.08: Leuven Symposium on Applied Mechanics in Engineering,edited by B. Bergen, M. De Munck, M. Desmet et al., Pts 1 and 2, pp. 539-552 (2008).

[129] - M. P. Mignolet, C. Soize, Nonparametric stochastic modeling of structural dynamic systems with uncertain boundary conditions. AIAA Conference, Schaumburg (Chicago), Illinois, USA, April 7-10, 2008. Proceedings of the AIAA Conference 2008, pp.1-12, AIAA (2008).

[128] - M.P. Mignolet, C. Soize, Uncertain coupling between substructures: a nonparametric stochastic modeling, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008.

[127] - T. Ritto, R. Sampaio, C. Soize, Influence of the drilling fluid flow on the dynamics of a drill-string, 8th World Congress on Computational Mechanics(WCCM8) coupled with the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 - July 5, 2008.

[126] - C. Soize (Invited Keynote Lecture), Nonparametric probabilistic approach of uncertainties in computational elastoacoustics of complex systems. Experimental identification and validation. LSAME 08, Leuven Symposium on Applied Mechanics in Engineering, Katholieke Univ Leuven, March 31 - April 2, 2008. Proceedings of LSAME.08: Leuven Symposium on Applied Mechanics in Engineering,edited by B. Bergen, M. De Munck, M. Desmet et al., Pts 1 and 2, pp. 463-472 (2008).

[125] - C. Soize (Plenary Lecture), Maximum entropy principle for stochastic models in computational sciences. EM08, The Inaugural International Conference of the Engineering Mechanics Institute, University of Minnesota, Minneapolis, Minnesota, USA, May 16-21, 2008. Proceedings of EM08, Engineering Mechanics Institute, Minnesota, pp. 1-20 (2008).

**2007**

[124] - A. Batou, C. Soize, S. Cambier, Nonlinear stochastic dynamics of two coupled uncertain dynamical systems, COMPDYN 2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, June 13-15, 2007, Proceedings on CDROM edited by M. Papadrakakis, D.C. Charmpis, N.D. Lagaros, Y. Tsompanakis, pp. 1-7, National Technical University of Athens, Greece (2007).

[123] - A. Batou, C. Soize, S. Cambier, Dynamique stochastique non linéaire de deux systèmes dynamiques incertains couplés, Actes du 8ème Colloque National en Calcul des Structures, pp. 1-8, Giens (Var), 21-25 Mai, 2007.

[122] - E. Capiez-Lernout, C. Soize, Robust updating of computational models with uncertainties for dynamical systems, COMPDYN 2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, June 13-15, 2007, Proceedings on CDROM edited by M. Papadrakakis, D.C. Charmpis, N.D. Lagaros, Y. Tsompanakis, National Technical University of Athens, Greece (2007).

[121] - E. Capiez-Lernout, C. Soize, Robust updating from experimental measurements in computational dynamics, USNCCM IX 2007, Ninth U. S. National Congress on Computational Mechanics, San Francisco, USA, July 22 -26, 2007.

[120] - E. Cataldo, C. Soize, C. Desceliers, R. Sampaio, Uncertainties in mechanical models of larynx and vocal tract for voice production. Proceedings of the XII International Symposium on Dynamics Problems of Mechanics (DINAME 2007), P.S. Varoto and M.A. Trindade (editors), pp. 1-10, ABCM, Ilhabela, SP, Brazil, February 26 - March 2, 2007.

[119] - R. Cottereau, D. Clouteau, C. Soize, S. Cambier, Approches paramétrique et non paramétrique pour la modélisation probabiliste des matrices d'impédance, Actes du 8ème Colloque National en Calcul des Structures, pp. 1-6, Giens (Var), 21-25 Mai, 2007.

[118] - R. Cottereau, D. Clouteau, C. Soize, Modèle dynamique équivalent de matrices d'impédance de fondation, Actes du 7ème Colloque National de L'Association Française du Génie Parasismique, pp. 1-8, AFPS, Ecole Centrale Paris, Chatenay Malabry, 4 - 6 Juillet, 2007.

[117] - C. Desceliers, C. Soize, Q. Grimal, G. Haiat, S. Naili, Transient elastic waves in fluid-structure multilayer systems with a probabilistic model of structural uncertainties, 1st International Conference on Uncertainty in Structural Dynamics, The University of Sheffield, Sheffield, UK, June 11-13, 2007. Proceedings of the USD conference, pp. 1-9, The University of Sheffield (2007).

[116] - C. Desceliers, C. Soize, Q. Grimal, G. Haiat, S. Naili, Stochastic inverse problem using experiments for uncertain fluid-solid multilayer systems in ultrasonic domain, USNCCM IX 2007, Ninth U. S. National Congress on Computational Mechanics, San Francisco, USA, July 22 -26, 2007.

[115] - C. Fernandez, C. Soize, L. Gagliardini, Modeling sound-insulation layers in vibroacoustic systems, 1st International Conference on Uncertainty in Structural Dynamics, The University of Sheffield, Sheffield, UK, June 11-13, 2007. Proceedings of the USD conference, pp. 1-10, The University of Sheffield (2007).

[114] - C. Fernandez, C. Soize, L. Gagliardini, Robust updating of computational models with uncertainties for dynamical systems, USNCCM IX 2007, Ninth U. S. National Congress on Computational Mechanics, San Francisco, USA, July 22 -26, 2007.

[113] - Q. Grimal, G. Haiat, M. Talmant, S. Naili, C. Desceliers, C. Soize, Stochastic modeling of the interaction of acoustic waves with a solid plate of random thickness: Application to cortical bone assessment with the axial transmission technique, 2007 ICU Vienna, The international congress on ultrasonics is a merger of the conference series WCU World Congress on Ultrasonics and UI Ultrasonics International, Vienna, Austria, April 9 - 12, 2007.

[112] - Q. Grimal, M. Talmant, G. Haiat, S. Naili, C. Desceliers, C. Soize, Modeling with uncertain parameters : Application to the ultrasonic assessment of bone quality. in XXI Congress of the International Society of Biomechanics. Taipei, Taiwan, July 1-5, 2007.

[111] - Q. Grimal, K. Raum, C. Desceliers, C. Soize, G. Haiat, S. Naili, M. Talmant, P. Laugier, Stochastic simulation of the axial transmission technique based on a multi-scale model of bone material properties, 2nD European symposium on ultrasonic characterization of bone (ESUCB 2007), Halle, Germany, July 19-20, 2007.

[110] - J. Guilleminot, C. Soize, D. Kondo, C. Binétruy, Effet des fluctuations de fractions volumiques en contexte stochastique : construction d'un modèle probabiliste et stratégie de résolution. Actes du 18ème Congrès Français de Mécanique 2007, pp. 1-6, Grenoble, France, 27 Août - 31 Août, 2007.

[109] - G. Haiat, Q. Grimal, S. Naili, C. Desceliers, C. Soize, Effect of a material properties spatial gradient on wave propagation: application to the axial transmission technique, 2007 ICU Vienna, The international congress on ultrasonics is a merger of the conference series WCU World Congress on Ultrasonics and UI Ultrasonics International, Vienna, Austria, April 9 - 12, 2007.

[108] - G. Haiat, S. Naili, Q. Grimal, C. Desceliers, C. Soize, How does a gradient of material properties due to endosteal resorption affect wave propagation in the axial transmission technique, 2nD European symposium on ultrasonic characterization of bone (ESUCB 2007), Halle, Germany, July 19-20, 2007.

[107] - K. Kim, M. P. Mignolet, C. Soize, Stochastic reduced order models for uncertain cantilevered plates in large deformations, 2007 ASME Design Engineering Technical Conferences (IDETC), Las Vegas, Nevada, USA, September 4-7, 2007

[106] - M. P. Mignolet, C. Soize, Stochastic reduced order models for uncertain nonlinear dynamical systems, IMAC XXV, Orlando, Florida, USA, February 19-22, 2007. Proceedings of IMAC XXV, pp. 1-28, The Society for Experimental Mechanics, Bethel, CT, USA (2007).

[105] - M. P. Mignolet, C. Soize, K. Kim, D-H Lee, Nonparametric stochastic modeling of structural dynamic and aeroelastic systems: formulation and novel extensions, 9th Non-deterministic Approaches (NDA) Conference and 48th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials (SDM) Conference, Waikiki, Hawaii, April 23-26, 2007. Proceedings of the NDA-SDM conference, pp. 1-10, AIAA (2007).

[104] - M.P. Mignolet, C. Soize, Nonparametric stochastic modeling of structural dynamic systems with uncertain boundary conditions, USNCCM IX 2007, Ninth U. S. National Congress on Computational Mechanics, San Francisco, USA, July 22 -26, 2007.

[103] - R. Sampaio, C. Soize, About the POD model reduction in computational mechanics for nonlinear continuous dynamical systems, Proceedings of ICCES'07, International Conference on Computational and Experimental Engineering and Sciences, Miami, USA,January 3-8, 2007, Tech Science Press, pp. 61-67, ISBN-10: 0-9717880-3-0 (2007).

[102] - R. Sampaio, C. Soize, Optimal basis of reduction; is there one? XII International Symposium on Dynamics Problems of Mechanics, DINAME 2007, Proceedings edited by P.S. Varoto and M.A. Trindade, ABCM, Ilhabela, SP, Brazil, 26 february - 02 March, 2007.

[101] - R. Sampaio, C. Soize, Optimal basis of reduction: is there one?, 19th International Congress of Mechanical Engineering, COBEM 2007, ABCM, Brasilia, DF, Brazil, November 5-9, 2007.

[100] - C. Soize (Plenary Lecture), Computational elastoacoustics of uncertain complex systems and experimental validation, COMPDYN 2007 conference, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, June 13-16, 2007. Proceedings edited by M. Papadrakakis, D.C. Charmpis, N.D. Lagaros and Y. Tsompanakis, Computational Structural Dynamics and Earthquake Engineering, Book Series: Structures and Infrastructures Series, Vol 2, pp. 71-84 (2009).

**2006**

[99] - E. Capiez-Lernout, C. Soize, Uncertainty modeling for robust design optimization in computational mechanics, 7th World Congress on Computational Mechanics(WCCM), Los Angeles, California USA, July 16-22, 2006.

[98] - R. Cottereau, D. Clouteau, C. Soize, Probabilistic models of impedance matrices. Applications to seismic soil-structure interaction, 7th World Congress on Computational Mechanics(WCCM), Los Angeles, California USA, July 16-22, 2006.

[97] - C. Desceliers, C. Soize, Identification of Chaos representations of uncertain elastic properties using experimental vibrational tests, 7th World Congress on Computational Mechanics(WCCM), Los Angeles, California USA, July 16-22, 2006.

[96] - C. Desceliers, Q. Grimal, G. Haiat, S. Naili, C. Soize, 1D-Space finite element approximation with 2D-space Fourier transform and with time-domain formulation for 3D-transient elastic waves in multilayer semi-infinite media, ICSV13, The thirteenth International Congress on Sound and Vibration, Vienna, Austria, July 2-6, 2006. Proceedings of ICSV13, pp. 1-8 (2006).

[95] - C. Desceliers, Q. Grimal, G. Haiat, S. Naili, C. Soize, Numerical simulation of the axial transmission technique for bone evaluation: a probabilistic approach, Journal of Biomechanics, 39 (Supplement 1): p. S463, 5th World congress of Biomechanics, Munich, 20 July – 4 August, 2006.

[94] - M. P. Mignolet, C. Soize, Nonparametric stochastic modeling of geometrically nonlinear structural dynamic systems, 7th World Congress on Computational Mechanics(WCCM), Los Angeles, California USA, July 16-22, 2006

[93] - M. Pellissitti, E. Capiez-Lernout, H. Pradlwarter, C. Soize, G.I. Schuëller, Reliability analysis of large scale structures using a non-parametric approach, 7th World Congress on Computational Mechanics(WCCM), Los Angeles, California USA, July 16-22, 2006

[92] - S. Sakji, C. Soize, J.-V. Heck, Thermo-mechanical modeling of plasterboard- lined partition submitted to fire load, 17th ACSE Analysis and Computation Speciality Conference, St Louis, USA, May 18-21, 2006. Proceedings of the 17th ACSE Analysis and Computation Speciality Conference, pp. 1-14, ASCE (2006).

[91] - E. Capiez-Lernout, C. Soize, Robust design optimization with respect to model and data uncertainties in computational mechanics, 5th Computational Stochastic Mechanics Conference (CSM), Rhodes, Greece, June 19-23, 2006, in *Computational Stochastic Mechanics*, G. Deodatis & P.D. Spanos (eds), ISBN 978 90 5966 052 6, Millpress, Rotterdam, Netherlands, pp. 139-146 (2007).

[90] - O. Le Maitre, C. Soize, Probabilistic model of uncertainties in two-phase flow through porous media, ECCOMAS CFD 2006, European Conference on Computational Fluid Dynamics, Egmond aan Zee, The Netherlands, September 5-8, 2006. Proceedings of ECCOMAS CFD 2006, P. Wesseling, E. Onate and J. Périaux (Eds), pp. 1-19, TU Delft, The Netherlands (2006).

[89] - M. P. Mignolet, C. Soize, Nonparametric stochastic modeling of linear systems with prescribed variance of several natural frequencies, 5th International Conference on Computational Stochastic Mechanics Conference (CSM), Rhodes, Greece, June 21-23, 2006, in *Computational Stochastic Mechanics*, G. Deodatis & P.D. Spanos (eds), ISBN 978 90 5966 052 6, Millpress, Rotterdam, Netherlands, pp. 471-480 (2007).

[88] - C. Soize, A class of tensor-valued random fields for random anisotropic elastic microstructure modeling and stochastic homogenization, 5th Computational Stochastic Mechanics Conference (CSM), Rhodes, Greece, June 19-23, 2006, in *Computational Stochastic Mechanics*, G. Deodatis & P.D. Spanos (eds), ISBN 978 90 5966 052 6, Millpress, Rotterdam, Netherlands, pp. 613-622 (2007).

[87] - C. Soize (Keynote Lecture), Stochastic modeling of uncertainties in computational dynamics and applications, pp. 1-19, 2nd LNCC Meeting on Computational Modelling, Petropolis, RJ, Brazil, 8–11 August 2006. Proceedings of the 2nd LNCC Meeting, pp. 1-19, LNCC, Petropolis (2006).

[86] - C. Soize (Invited Lecture), Multiscale stochastic modeling of random anisotropic elastic media with a complex microstructure, pp. 1-14, 2nd LNCC Meeting on Computational Modelling, Petropolis, RJ, Brazil, August 8–11, 2006.

[85] - E. Capiez-Lernout, C. Soize, Robust design optimization for uncertain complex dynamical systems, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 18-20, 2006, Proceedings of ISMA 2006, Vols 1-8, pp. 4041-4054 (2006).

[84] - C. Desceliers, C. Soize, R. Ghanem, Inverse problem for the identification of Chaos representations of random fields using experimental vibrational tests, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 18-20, 2006, Proceedings of ISMA 2006, Vols 1-8, pp. 4117-4123 (2006).

**2005**

[83] - E. Capiez-Lernout, C. Soize, J.-P. Lombard, C. Dupont, Uncertain rotating dynamical systems with cyclic geometry, 6th International Conference on Structural Dynamics, EURODYN 2005, Paris, France, sept 04-07, 2005. Proceedings *Structural Dynamics EURODYN 2005*, Millpress, Rotterdam, Netherlands, Vols 1-3, pp. 2129-2134 (2005).

[82] - C. Chen, D. Duhamel, C. Soize, Uncertainties in structural dynamics for composite sandwich panels, International Conference on Modal Analysis, Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 20-22, 2004. CD-ROM edited by the Katholieke Universiteit Leuven, Proceedings of ISMA 2004, Vol. 1-8, pp. 2995-3008 (2005).

[81] - C. Chen, D. Duhamel, C. Soize, Uncertainties in vibroacoustics of a cavity with a composite sandwich panel wall, 6th International Conference on Structural Dynamics, EURODYN 2005, Paris, France, sept 04-07, 2005. Proceedings *Structural Dynamics EURODYN 2005*, Millpress, Rotterdam, Netherlands, Vols 1-3, pp. 859-864 (2005).

[80] - C. Chen, D. Duhamel C. Soize, Identification et validation expérimentale d'un modèle stochastique des incertitudes en vibroacoustique d'un panneau composite. Actes du 17ème Congrès français de mécanique 2005, pp. 1-5, Troyes, France, 29 Août - 2 Septembre, 2005.

[79] - R. Cottereau, D. Clouteau, C. Soize, Construction of a probabilistic model for the soil impedance matrix using a non-parametric model, 6th International Conference on Structural Dynamics, EURODYN 2005, Paris, France, sept 04-07, 2005. Proceedings *Structural Dynamics EURODYN 2005*, Millpress, Rotterdam, Netherlands, Vols 1-3, pp. 841-846 (2005).

[78] - R. Cottereau, D. Clouteau, C. Soize, Construction d'un modèle probabiliste de l'impédance du sol par une méthode non paramétrique, Actes du 7ème Colloque National en Calcul des Structures, pp. 1-7, Giens (Var), 17-20 Mai, 2005.

[77] - C. Desceliers, R. Ghanem, C. Soize, Problème stochastique inverse et représentation sur les chaos pour l'identification expérimentale des champs stochastiques modélisants le comportement des milieux élastiques tridimensionnelles. Actes du 17ème Congrès français de mécanique 2005, pp. 1-6, Troyes, France, 29 Août - 2 Septembre, 2005.

[76] - C. Desceliers, C. Soize, Identification of a random elastic medium by vibration tests, 18th International Congress of Mechanical Engineering, COBEM 2005, Ouro Preto, MG, Brazil, November 6-11, 2005. Proceedings of COBEM 2005, pp. 1-8, ABCM (2005).

[75] - J.-F Durand, L. Gagliardini, C.Soize, Random uncertainties modelling for vibroacoustic frequency response functions of cars, International Conference on Modal Analysis, Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 20-22, 2004. CD-ROM edited by the Katholieke Universiteit Leuven, ISBN 90-73-802-82-2 (2004), Proceedings of ISMA 2004, Vol. 1-8, pp. 3255-3266 (2005).

[74] - J.-F. Durand, L. Gagliardini, C. Soize, Nonparametric modeling of the variability of vehicle vibroacoustic behavior, SAE Noise and Vibration Conference and Exhibition, Traverse City, Michigan, USA, 16–19 May, 2005.

[73] - J.-F. Durand, L. Gagliardini, C. Soize, Non-parametric modelling of vibroacoustic coupling interface uncertainties, 6th International Conference on Structural Dynamics, EURODYN 2005, Paris, France, sept 04-07, 2005. Proceedings *Structural Dynamics EURODYN 2005*, Millpress, Rotterdam, Netherlands, Vols 1-3, pp. 1193-1198 (2005).

[72] - J.-F. Durand, L. Gagliardini, C. Soize, Modélisation des incertitudes pour la prévision du comportement vibroacoustique d'un véhicule automobile. Actes du 17ème Congrès français de mécanique 2005, pp. 1-6, Troyes, France, 29 Août - 2 Septembre, 2005.

[71] - M. Pellissitti, E. Capiez-Lernout, H. Pradlwarter, G.I. Schueller, C. Soize, Large finite element systems with random uncertainties, 6th International Conference on Structural Dynamics, EURODYN 2005, Paris, France, sept 04-07, 2005. Proceedings *Structural Dynamics EURODYN 2005*, Millpress, Rotterdam, Netherlands, Vols 1-3, pp. 677-682 (2005).

[70] - S. Sakji, C. Soize, J.-V. Heck, Thermo-mechanical model of a cardboard-plaster-cardboard composite plate submitted to fire load and experiments, 2nd International Conference on Computational Methods and Experiments in Material

Characterisation, Portland, Maine, USA, 2-4 November, 2005, proceedings *Computational Methods and Experiments in Material Characterisation II*, Book series: WIT Transactions on Engineering Sciences, Vol 51, 133-140 (2005).

[69] - S. Sakji, C. Soize, J.-V. Heck, Modèle thermomécanique à haute température et à rupture pour les plaques multicouches carton-plâtre-carton soumises au feu. Expériences et simulations numériques. Actes du 17 ème Congrès français de mécanique 2005, pp. 1-6, Troyes, France, 29 Août - 2 Septembre, 2005.

[68] - S. Sakji, C. Soize, J.-V. Heck, Modèle probabiliste d'homogénéisation des plaques multicouches carton-plâtre-carton: expérimentations et simulations. Actes de la 4ème Conférence Nationale JNF'05 sur la Fiabilité des Matériaux et des Structures, pp. 1-10, Université Blaise Pascal, Clermont-Ferrand, 25-26 Octobre, 2005.

[67] - R. Sampaio, C. Soize, On measures of nonlinearities for dynamical systems with uncertainties, Cobem'05, 18th International Congress of Mechanical Engineering, Ouro Preto, MG, Brazil, November 6-11, 2005. Proceedings of COBEM 2005, pp. 1-8, ABCM (2005).

[66] - C. Soize (Opening Invited Lecture), Approche probabiliste des incertitudes de modèles et de données pour la simulation numérique en mécanique. Actes du 17ème Congrès français de mécanique 2005, pp. 1-20, Troyes, France, 29 Août - 2 Septembre, 2005.

[65] - C. Soize (Plenary Lecture), Probabilistic models for computational stochastic mechanics and applications, in the proceedings (with CD-ROM) of the 9th International Conference on Structural Safety and Reliability ICOSSAR'05, Rome, Italy, 19–23 June 2005, Edited by G. Augusti, G.I. Schueller and M. Ciampoli, Millpress, Rotterdam, Netherlands, pp.23-42, ISBN 90 5966 040 4 (2005).

**2004**

[64] - E. Capiez-Lernout, C. Soize, J.-P. Lombard, C. Dupont, E. Seinturier, Blade manufacturing tolerances definition for a mistuned industrial bladed disk, pp. 1-10, in the proceedings of Turbo Expo 2004, GT-2004-53356, ASME Turbo Expo: Land, Sea and Air 2004, Vienna, Austria,EU, June 14-17, 2004.

[63] - C. Soize, Non Gaussian matrix-valued random fields for nonparametric probabilistic modeling of elliptic stochastic partial differential operators, in the proceedings (CD-ROM) of the 9th ASCE Joint Speciality Conference on Probabilistic Mechanics and Structural Reliability, Sandia National Laboratory, Albuquerque, New Mexico, USA, July 26-28, 2004. CD-ROM edited by Sandia National Laboratory (2004).

[62] - C. Desceliers, R. Ghanem, C. Soize, Stochastic Conditioner for Accelerating Convergence of Monte Carlo Simulations, in the proceedings (CD-ROM) of the 9th ASCE Joint Speciality Conference on Probabilistic Mechanics and Structural Reliability, Sandia National Laboratory, Albuquerque, New Mexico, USA, July 26-28, 2004. CD-ROM edited by Sandia National Laboratory (2004).

**2003**

[61] - S. Cambier, C. Desceliers, C. Soize, Prise en compte probabiliste des incertitudes dans l'estimation du comportement sismique d'un circuit primaire, 6ème colloque AFPS 2003, Ecole Polytechnique, 1-3 Juillet, 2003.

[60] - E. Capiez-Lernout, C. Soize, Specifying manufacturing tolerances for a given amplification factor: a nonparametric probabilistic methodology. Proceedings of Turbo Expo 2003, GT-2003-38050, ASME Turbo Expo: Land, Sea and Air 2003, Atlanta, Georgia, USA, June 13-16, 2003.

[59] - E. Capiez-Lernout, C. Soize, Désaccordage induit par les incertitudes aléatoires de géométrie des structures cycliques, Actes du 6ème Colloque National en Calcul des Structures, Giens (Var), 20-23 mai 2003, Tome I, pp. 219-226, ISBN 2-7302-1032-6 (2003).

[58] - C. Desceliers, C. Soize, S. Cambier, Uncertain nonlinear dynamical systems subjected to seismic loads, 9th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP9, Berkeley, San Francisco, July 6-9, 2003: *Applications of Statistics an Probability in Civil Engineering*, der Kiureghian, Madanat and Pestana (eds), Millpress, Rotterdam, Vol. 1, pp. 251-257, ISBN 90 5966 004 8 (2003).

[57] - C. Desceliers, C. Soize, S. Cambier, Nonlinear dynamical systems with data and model uncertainties subjected to seismic loads, 17th International Conference on Structural Mechanics in Reactor Techynology, SMiRT 17, Prague, Czech Republic, August 17-22, 2003.

[56] - J. Duchereau, C. Soize, Transient dynamics induced by shocks in stochastic structures, 9th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP9, Berkeley, San Francisco, July 6-9, 2003:

*Applications of Statistics an Probability in Civil Engineering*, der Kiureghian, Madanat and Pestana (eds), Millpress, Rotterdam, Vol. 1, pp. 267-273, ISBN 90 5966 004 8 (2003).

[55] - J. Duchereau, C. Soize, Dynamique transitoire de chocs pour des structures avec incertitudes aléatoires, Actes du 6ème Colloque National en Calcul des Structures, Giens (Var), 20-23 mai 2003, Tome III, pp. 447-454, ISBN 2-7302-1032-6 (2003).

[54] - B. Faverjon, C. Soize, Analytical model of a wall acoustic impedance and experimental comparisons, Eighth International Conference on Recent Advances in Structural Dynamics, University of Southampton, 14-16 July, 2003.

[53] - B. Faverjon, C. Soize, Approximation analytique de l'impédance acoustique de paroi d'un système d'isolation acoustique, Actes du 6ème Colloque National en Calcul des Structures, Giens (Var), 20-23 mai 2003, Tome I, pp. 227-234, ISBN 2-7302-1032-6 (2003).

[52] - B. Tiliouine, S.A. Zermout, A. Mébarki, C. Soize, Génération de spectre de puissance pour l'analyse stochastique de la réponse sismique des structures, 6ème colloque AFPS 2003, Ecole Polytechnique, 1-3 Juillet, 2003.

[51] - C. Soize, Random uncertainties modeling for the medium-frequency dynamics, 5th International Conference on Stochastic Structural Dynamics, Hangzhou, China, August 11-13, 2003, in *Advances in Stochastic Structural Dynamics*, pp; 429-436, CRC Press LLC, Boca Radon, London, New York (2003).

[50] - C. Soize (Keynote Lecture), Modélisation probabiliste des incertitudes de modélisation en dynamique des structures soumises aux seismes, International Conference "Risk, Vulnerability and Reliability in Construction: towards a reduction of disasters", Ecole Polytechnique, Alger, October 11–12, 2003.

**2002**

[49] - J. Duchereau, C. Soize, Dynamique transitoire de chocs avec incertitudes aléatoires non homogènes par sous-structuration dynamique, XIIIème colloque Vibrations, Chocs et Bruits, ECL Lyon, 12-14 juin 2002. Actes du Colloque, pp. 1-14 (2002).

[48] - B. Faverjon, C. Soize, Algebraic model of a wall acoustic impedance constructed using an experimental data, International Conference on Noise and Vibration Engineering, ISMA 2002, Katholieke Universiteit Leuven, Belgium, September 16-18 (2002). Proceedings of ISMA 2002: International conference on noise and vibration engineering, vols 1-5, pp. 2123-2132 (2002).

[47] - B. Puig, F. Poirion, C. Soize, Non-Gaussian simulation using Hermite polynomial expansion, pp. 487-496, in *Computational Stochastic Mechanics*, Spanos & Deodatis (eds), Millpress, Rotterdam, Netherlands, 2003. Proceedings of the Fourth International Conference on Computational Stochastic Mechanics, Corfu, Greece, June 9-12, 2002.

[46] - C. Soize, Random matrix theory and random uncertainties modeling, pp. 575-581, in *Computational Stochastic Mechanics*, Spanos & Deodatis (eds), Millpress, Rotterdam, Netherlands, 2003. Proceedings of the Fourth International Conference on Computational Stochastic Mechanics, Corfu, Greece, June 9-12, 2002.

[45] - C. Soize (Plenary Lecture), Random uncertainties modeling in dynamical systems, pp. 13–24, in *Structural Dynamics EURODYN 2002*, Vol 1, Grundmann H. & Schueller G.I. (eds.), Swets & Zeitlinger Publishers, Lisse, ISBN 90 5809 510 X (2002). Proceedings of the Fourth International Conference on Structural Dynamics organized by the European Association for Structural Dynamics, Technique University of Munich, Munich, Germany, September 2–5, 2002.

**2001**

[44] - H. Chebli, C. Soize, Une nouvelle approche de la modélisation des incertitudes de modélisation basée sur le principe du maximum d'entropie, en sous-structuration dynamique des structures, pour le domaine des basses fréquences, pp. 967-974 dans les actes (CD-ROM) du 5ème Colloque National en Calcul des Structures, Giens (France), 15-18 mai, 2001. CD-ROM édité par C.S.M.A., ISBN 2-87717-079-9 (2001).

[43] - H. Chebli, C. Soize, A nonparametric model of random uncertainties in dynamic substructuring, 8th International Conference on Structural Safety and Reliability (ICOSSAR 2001), Newport Beach, California, USA, June 17-22, 2001, Proceedings: Structural Safety and Reliability (ICOSSAR 2001), pp. 51, edited by R.B. Corotis, G.I. Schueller, M. Shinozuka, A.A. Balkema Publishers, Lisse, The Metherlands, ISBN 90 5809 197X (2001).

[42] - C. Soize (Invited Lecture), Random matrix theory for modeling random uncertainties in transient elastodynamics, 141th ASA meetings, Chicago, Illinois, June 4–8, 2001, *J. Acoust. Soc. Am.*, **109**(5), Pt 2, pp. 2470 (2001).

[41] - C. Soize, S. Mziou, Dynamic substructuring in the medium-frequency range, ISMA 25, International Conference on Noise and Vibration Engineering, Katholieke Universiteit Leuven, Belgium, September 13-15, 2000, CDROM edited by P. Sas and D. Moens, Katholieke Universiteit LeuvenUnicamp, Belgium, pp. 1185-1191, ISBN: 90-73802-72-5 (2001). Structural Dynamics, Technique University of Munich, Munich, Germany, September 2–5, 2002.

**2000**

[40] - C. Soize, Monte Carlo simulation of positive random matrices and time responses of structural dynamical systems with random uncertainties, in *Monte Carlo Simulation*, pp. 375–382, Edited by G.I. Schueller and P. D. Spanos, A.A. Balkema Publishers, Lisse, The Netherlands, 2001. Proceedings of the international conference on Monte Carlo Simulation, Monte Carlo, Principalty of Monaco, June 18-21, 2000.

**1999**

[39] - C. Desceliers, C. Soize, Nonlinear structural dynamics equations in finite displacements for three-dimensional viscoelastic rotating structures with cyclic symmetry and for small geometrical perturbations, Cobem'99, 15th Brazilian congress of Mechanical Engineering, Aguas de Lindoia, Sao Paulo, Brazil, November 22-26, 1999, CDROM edited by Unicamp University, Campinas, Brazil, ISBN: 85-85769-03-3 (1999).

[38] - F. Poirion, C. Soize, Monte Carlo construction of Karhunen-Loeve expansion for non Gaussian random fields, Proceedings of the 13th ASCE Engineering Mechanics Division Conference, The Johns Hopkins University, Baltimore MD, USA, June 13-16, 1999, CDROM edited by N.P. Jones and R.G. Ghanem (1999).

[37] - C. Soize (Invited Lecture), Main difficulties in the mid-frequency range and reduced matrix models for structural-acoustic problems, 138th ASA meetings, Columbus, OH, November 1-5, 1999, *J. Acoust. Soc. Am.*, **106**(4), Pt 2, pp. 2118 (1999).

[36] - C. Soize (Invited Lecture), Reduced models for computational structural acoustics in the medium-frequency range, Symposium on Computational Acoustics, ASME, 1999 International Mechanical Engineering Congress and Exposition, Nashville, TN, November 14-19, 1999, NCA-Vol. 26, Proceedings of the ASME, Noise Control and Acoustics Division, doi: 10.1115/IMECE1999-0232, Book No. G01131 - 1999, pp. 479–485 (1999).

[35] - C. Soize (Invited Lecture), A Nonparametric Model of Random Uncertainties in Linear Structural Dynamics, Conference on Progress in Stochastic Structural Dynamics, Chatillon, 28 Juin 1999. *Publications du LMA-CNRS*, ISBN 2-909669-16-5, **152**, 109–138 (1999).

**1998**

[34] - K. Bjaoui, C. Soize, Estimation des paramètres moyens d'une structure floue pour des jonctions continues, 4ème colloque du GDR Vibroacoustique - CNRS 1138, Nevers, 11-13 mars 1998, *Publications du LMA-CNRS*, ISBN 2-909669-13-0, **149**, 43–55 (1998).

[33] - T.J. Monger, K.H. Heron, A.P. Payne, J.M. David, L. Guillaumie, M. Menelle, A. Morvan, C. Soize, Statistical energy analysis predictions of the Dovac box experimental results, Euronoise'98, Munchen, Germany, October 4-7, 1998. Proceedings of Euronoise'98 Edited by Hugo Fastl, Technische Universitat, Munchen; *Designing for Silence, Prediction, Measurements and Evaluation of Noises and Vibration*, Vol 1, pp. 195–200 (1998).

[32] - R. Ohayon, C. Soize, Modélisation et réduction modale en vibroacoustique interne et externe BF, 4ème colloque du GDR Vibroacoustique - CNRS 1138, ISAT, Nevers, 11-13 mars 1998, *Publications du LMA-CNRS*, ISBN 2-909669-13-0, **149**, 1–10 (1998).

[31] - C. Soize (Plenary Lecture), Trends in modeling of structural-acoustics systems with structural complexity in low- and medium-frequency ranges, Proceedings of the 16th International Congress on Acoustics and 135th meeting Acoustical Society of America, Seattle, Washington, USA, 20-26 June 1998, Editors: P. K. Kuhl and L. A. Crum, University of Washington, Seattle, WA, Vol IV, pp. 2439–2442 (1998).

[30] - C. Soize (Invited Lecture), La Problématique des moyennes fréquences et présentation d'une méthode de réduction des modèles en vibroacoustique MF, 4ème colloque du GDR Vibroacoustique - CNRS 1138, ISAT, Nevers, 11-13 mars 1998, *Publications du LMA-CNRS*, ISBN 2-909669-13-0, **149**, 65–84 (1998).

**1997-1996**


[29] - C. Soize (Invited Lecture), Approche stochastique en dynamique des structures, PRIMECA, 18-20 Novembre 1997, Centre ENSAM de Metz, Actes édités par ENSAM et ENS Cachan, pp. 1-14 (1997).

[28] - C. Soize, *Seventh International Conference on Structural Safety and Reliability*, ICOSSAR'97, Kyoto, Japan, November 24-28, 1997.

[27] - C. Soize (Invited Lecture), Modélisation, formulation et méthodes numériques pour les problèmes de vibroacoustique interne et externe en moyennes fréquences pour les structures complexes. Introduction de la théorie du flou structural, Ecoles CEA-EDF-INRIA, dans *Interactions fluides-structures*, édité par l'INRIA Rocquencourt, pp. 261–312 (1996).

[26] - C. Soize (Invited Lecture), Estimation of the fuzzy substructure model parameters using the mean power flow equation of the fuzzy structure, Symposium on Complexity in Acoustics, ASME Congress, Atlanta, GA, November 17–22, 1996; Proceedings of the ASME Noise Control and Acoustics Division, doi: 10.1115/IMECE1996-0505, Paper No: MECE1996-0505, pp. 23-30, ASME, New York, (1996), Published Online: July 27, 2023.

[25] - C. Soize (Invited Lecture), Low-frequency/medium-frequency analysis of a master structure coupled with fuzzy substructures, Paper 3aSA1, Third Joint Meeting Acoustical Society of America and Acoustical Society of Japan, 2 December - 6 December 1996, Honolulu, Hawai, *J. Acoust. Soc. Am.*, **100**(4), Pt 2, pp. 2683 (1996).


**1995**


[24] - C. Soize (Invited Lecture), Dissipation apparente dans les structures due à la complexité structurale : un modèle basé sur la théorie du flou structural, Premier colloque du GDR Vibroacoustique - CNRS 1138, Marseille, 14-15 Décembre 1994, *Publications du LMA-CNRS*, ISBN 2-909669-06-8, **142**, 23–34 (1995).

[23] - C. Soize, A new mechanical application in the area of the multidimensional nonlinear stochastic dynamics using a recent result concerning stochastic nonlinear dissipative Hamiltonian dynamical systems, Third International Conference on Stochastic Structural Dynamics, San Juan, Puerto Rico, January 15–18, 1995. Proceedings edited by H. Davoodi and A. Saffar, pp. 3.1–3.8 (1997).

[22] - J.M. David, C. Soize, Statistical energy analysis : Formulation and software developments at ONERA, Euronoise'95, Lyon (France), March 21-23, 1995, Vol. **2**, pp. 631–635 (1995).

[21] - Invited Lecture, C. Soize, Basic formulations for internal and external structural-acoustics problems in medium and high modal density cases, Euronoise'95, Lyon (France), March 21-23, 1995, Vol. **2**, pp. 399–409 (1995).

[20] - C. Soize, Recent applications in nonlinear stochastic dynamics using new results in the field of stochastic multidimensional nonlinear dissipative Hamiltonian dynamical systems, Seventh International Conference on Applications of Statistics and Probability in Civil Engineering (CERRA-ICASP 7), July 10-13, 1995, Paris, *Proceedings: Applications of statistics and probability - Civil engineering reliability and risk analysis*, Edited by M. Lemaire, J.-L. Favre & A. Mébarki, Balkema, Rotterdam , Vol. **2**, pp. 1143-1148 (1995).

[19] - C. Soize (Invited Lecture), Parameter estimation for fuzzy structures. A result concerning vibrations in the low-frequency range, Paper 4aSA1, 130th meeting of ASA, 27 November - 1 December 1995, St. Louis, Missouri, *J. Acoust. Soc. Am.*, **98**(5), pp. 2946 (1995).


**1994-1992**


[18] - C. Soize (Invited Lecture), Méthodes de prévision en vibro-acoustique, dans les actes du congrès, tome I, Les Entretiens de la Technologie, 3-ème édition, Paris, Palais des Congrès, 15-16 mars (1994).

[17] - D.A. Russel, V.W. Sparrow and C. Soize, A mathematical formulation for modeling the type I fuzzy parameters for a continuous line fuzzy attachment, Paper 2aSA3, 127th meeting of ASA, 6–10 June 1994, MIT, Cambridge, Massachusetts, *J. Acoust. Soc. Am.*, **95**(5), pp. 2846 (1994).

[16] - C. Soize, Stochastic linearization method with random parameters and power spectral density calculation, *Sixth International Conference on Structural Safety and Reliability*, ICOSSAR'93, Innsbruck, Austria, on August 9-13 1993. Proceedings edited by G.I. Schueller, M. Shinozuka, J.T.P. Yao, A.A. Balkema, Rotterdam, Brookfield, **1**, 217–222 (1994).

[15] - J.J. Angélini, C. Soize and P. Soudais, Hybrid numerical method for the 3D harmonic maxwell equations in the multi-metallic and multi-dielectric bodies cases, 1992 Joint Synposia of Chicago IEEE/APS, Digest, **2**, 793–796 (1992).

[14] - C. Soize (Invited Lecture), Modeling and numerical method in the medium frequency range for vibroacoustic predictions using theory of structural fuzzy, Paper 3, 124th meeting of ASA, 31 October - 4 November 1992, New Orleans, LA, *J. Acoust. Soc. Am.*, **92**(4), pp. 2365 (1992).

**1991-1989**

[13] - C. Soize (Invited Lecture), Sur le calcul des densités spectrales des réponses stationnaires pour des systèmes dynamiques stochastiques non linéaires, Rencontres Scientifiques du Cinquantenaire, Contrôle Actif Vibro-acoustique et Dynamique Stochastique, *Publications du LMA-CNRS*, ISSN 0750-7356, **127**, 297-344 (1991).

[12] - C. Soize (Invited Lecture), Méthodes numériques en élastoacoustique dans le domaine non modal, Proceedings of the International Symposium on Prediction of the Noise Emitted by Vibrating Structures, CETIM-Senlis, France, March26-28 1991, *Revue Française de Mécanique*, Special Issued Number 1991, pp. 412-437 (1991).

[11] - C. Soize (Invited Lecture), Simulation numérique en aéroélasticité, Science et Défense 90, 15-16 Mai 1990, dans *Les nouveaux matériaux, la mécanique en environnement sévères*, Dunod, Paris, pp. 379–397 (1990).

[10] - C. Soize (Invited Lecture), Simulation numérique en aéroélasticité, 27ème colloque d'Aérodynamique Appliquée, AAAF, Marseille, 15-17 Octobre (1990).

[9] - M. Dussac, P. Martin, H.J. Marze, F. Chabas, J.M. David, A. Desanti, N. Meidinger and C. Soize, A finite element method to predict internal noise levels at discrete frequencies for a partially composite helicopter fuselage, AHS Annual Forum 45, Boston (Ma), pp. 1-12, May 22-24 (1989).

[8] - C. Soize (Invited Lecture), Méthodes numériques en matière de dynamique et de rayonnement acoustique des structures, Science et Défense 89, 23-24 Mai 1989, dans *Simulations Numériques*, DGA, Paris, pp. 99–124 (1989).

**1988-1978**

[7] - C. Soize, Markovianisation de la houle aléatoire et applications, Journée de Mécanique Aléatoire Appliquée à la Construction, AFREM, Paris, pp. 24-31 (1984).

[6] - C. Soize, Medium frequency linear vibrations of anisotropic elastic structures, Proceedings of the Third International Symposium on Numerical Methods in Engineering, edited by P. Lascaux, Pluralis, Paris, Tome 2, pp. 495–501 (1983).

[5] - P. Krée, C. Soize, Markovianization of non linear oscillators with colored input, Rend. Sem. Math. Univer. Politech. Torino, Editrice Levretto Bella, Torino, pp. 135–150 (1982).

[4] - C. Soize, Bases objectives de la forme paramétrique du coefficient sismique horizontal des règles PS 69, Journée Séismes et Construction Métallique, 28 Avril 1981, Centre d'Etudes Supérieures, Paris. *Annales de l'Institut Technique du Bâtiment et des Travaux Publics*, Série Construction Métallique 90, **408**, 94-98 (1982).

[3] - C. Soize, Comparison between full scale measures and prediction probabilistic model of wind effects on Maine-Montparnasse tower building, International Symposium on Design with the Wind, 15–19 June 1981, CSTB Nantes, Actes du Colloque, Tome 2, chapitre VI-5 (1981).

[2] - C. Soize, Stochastic approaches in wind and ocean wave engineering, International Conference on Probabilistic Safety of Structures, 8–9 September 1980, Paris, Proceedings, CTICM Edition, pp. 55–95 (1980).

[1] - P. Renard, C. Soize, Système intégré pour la vérification à la fatigue des plateformes à embase poids soumises à la houle aléatoire, Journées de l'AFPC , 6-7 Juin 1978, Paris, Thème 2, Construction Offshores, pp. 185–200 (1978).

### 7.7. Communications in National and International Workshops, Seminars and Non-Refereed Conferences

**2024-2025**

[127] - Invited Seminar, C. Soize, Some examples of probabilistic models for uncertainty quantification and statistical metamodels in the computational mechanics of materials and structures, Department of Civil Engineering and Architecture, University of Catania, Catania, Italy, May 27, 2025.

[126] - C. Soize, L. Joubert-Doriol, A.F. Izmaylov, Quantum computer formulation of the FKP-operator eigenvalue problem for probabilistic learning on manifolds, Scientific MECA Day of MSME, Université Gustave Eiffel, June 13, 2025.

[125] - Invited Seminar, C. Soize, Statistical surrogates for uncertain systems: from atomistic to macroscale, and updating from small and incomplete datasets using probabilistic learning, Mechanical Engineering department, Universidade do Estado do Rio de Janeiro (UERJ), Rio de Janeiro, Brazil, September 24, 2024.

[124] - C. Soize, Webinar on JCISE Youtube channel, spotlight presentation series on ASME Journal of Computing and Information Science in Engineering (JCISE) for the best papers published in June 2024 issue: "Updating nonlinear stochastic dynamics of an uncertain nozzle model using probabilistic learning with partial observability and incomplete dataset" by E. Capiez-Lernout, O. Ezvan, C. Soize, June 18, 2024.

[123] - R. Jorge Do Marco, G. Perrin, C. Funfschilling, C. Soize, Optimization of driver control to limit train energy consumption, F2M Thematic Day on "Dynamics and Control of Coupled Systems", ENSTA, January 29, 2024.

**2022-2023**

[122] - C. Soize, Probabilistic learning-based statistical metamodel in nonlinear stochastic dynamics for under-observed systems and small data, F2M Thematic Day on Probabilistic Approaches in Mechanics", Université Gustave Eiffel, July 3, 2023.

[121] - C. Soize, Probabilistic learning under constraints for statistical surrogates of under-observed nonlinear stochastic dynamical systems, Scientific Day of MSME, Université Gustave Eiffel, June 2, 2023.

[120] - R. Jorge Do Marco, G. Perrin, C. Funfschilling, C. Soize, Uncertainty model and its identification for real-time optimal speed control for high-speed train under constraints, F2M Thematic Day on Probabilistic Approaches in Mechanics", Université Gustave Eiffel, July 3, 2023.

**2019-2018**

[119] - C. Soize, Modélisation stochastique des champs, identification statistique inverse, apprentissage probabiliste sur les variétés, optimisation de design sous incertitudes en mécanique numérique, GDR Mecafib, INSA Lyon, 26-27 Mars 2019.

[118] - Invited Seminar, C. Soize, Probabilistic learning on manifolds for the small-data challenge with applications to optimization under uncertainties and statistical inverse problems, University of Liège, Belgium, 3 April 2019.

[117] - G. Perrin, Soize, Oubhi (présenté par G. Perrin), Data-driven kernel representations for sampling with an unknown block dependence, GDR MascotNum 2018, Ecole Centrale de Nantes, March 22, 2018

[116] - Invited Seminar, C. Soize, Data-driven probabilistic learning on manifolds and nonconvex optimization problems with applications, Duke University, Durham, NC, USA 24 April 2018.

[115] - Invited Seminar, C. Soize, Probabilistic learning in computational mechanics, Laboratoire MSSC, Conservatoire National des Arts et Métiers (CNAM), Paris, 31 Mai 2018.

[114] - Invited Seminar, C. Soize, Probabilistic learning for Uncertainty Quantification in computational sciences and engineering, Seminários Arthur Palmeira Ripper Neto, Department of Mechanical Engineering, Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, Brazil, 24 August 2018.

[113] - Invited Seminar, C. Soize, Probabilistic learning for optimization problems under uncertainties, Department of Telecommunications Engineering, Universidade Federal Fluminense (UFF), Niterói, Brazil, 29 August 2018.

[112] - Invited Seminar, C. Soize, Probabilistic learning on manifolds in computational mechanics, Séminaire de la branche MAS (Matériaux & Structure), ONERA, 26 septembre 2018.

[111] - C. Soize, Approche probabiliste de machine learning pour les grandes simulations numériques, Séminaire transversal du laboratoire Modélisation et Simulation Multi-Echelle (MSME), Université Paris-Est Marne-la-Vallée (UPEM), 16 novembre 2018.

**2017-2016**

[110] - Invited Seminar, C. Soize, Modélisation probabiliste globale des incertitudes dans les modèles d'ordre réduit non linéaires, Séminaire du laboratoire POEMS, Palaiseau, 2 février 2017.

[109] - Invited Seminar, C. Soize, Une nouvelle approche probabiliste non paramétrique des incertitudes de modélisation dans les modèles d'ordre réduit non linéaires, Séminaire de la Fédération Francilienne de Mécanique, ENSAM, 16 juin 2016.

[108] - Invited Seminar, C. Soize, Modélisation probabiliste et identification statistique inverse du champ d'élasticité apparent aux échelles mésoscopiques et nanoscopiques de matériaux composites. Séminaire de la branche MAS (Matériaux & Structure), ONERA, 30 septembre 2016.

[107] - C. Soize, Probabilistic learning on manifold for optimization under uncertainties, Journée Scientifique Mécanique du laboratoire Modélisation et Simulation Multi-Echelle (MSME), Université Paris-Est Marne-la-Vallée (UPEM), 18 novembre 2016.

**2015-2014**

[106] - Invited Seminar, J. Guilleminot, C. Soize (presented by J. Guilleminot), Stochastic multiscale modeling and inverse identification of complex heterogeneous materials. Computational multiphysics systems laboratory, Center for computational material science, Naval Research Laboratory, Washington DC, USA, April 9, 2015.

[105] - O. Ezvan, A. Batou, C. Soize, (présenté par O. Ezvan), Modèle réduit stochastique multi-niveau en dynamique des structures. Journée Thématique MSME, Thiais, France, 5 juin 2015.

[104] - Invited Seminar, C. Soize, Remarks on reduced-order models and uncertainty quantification in computational dynamics, Séminaire de l'Equipe "Dynamique des Structures et des Systèmes", Laboratoire de Tribologie et Dynamique des Systèmes, Ecole Centrale Lyon, July 9, 2015.

[103] - Invited Seminar, C. Soize, in collaboration with C. Desceliers, J. Guilleminot, T.T. Le, M.T. Nguyen, G. Perrin, J.M. Allain, H. Gharbi, D. Duhamel, C. Funfschilling, Stochastic representations and statistical inverse identification for uncertainty quantification in computational mechanics, seminar, School for Engineering of Matter, Transport, and Energy (SEMTE), Arizona State University (ASU), Tempe, Arizona, USA, December 4, 2015.

[102] - G. Perrin, D. Duhamel, C. Funfschilling, N. Ouhbi, J.N. Roux, C. Soize, C. Voivret, Statistical inverse problems for non-Gaussian non-stationary stochastic processes defined by a set of realizations, Workshop "Propagation of Uncertainty", Institut Henti Poincaré, Paris, December 11, 2015.

[101] - I. E. Poloskov, I. I. Poloskov, C. Soize, Parallel computations in the problem of analysis of a mechanical system movement in a thermoviscoelastic medium, *Bulletin of Perm State University. Mathematics. Mechanics. Information Science*, ISSN 1993-0550, **4**(31), 46-57 (2015).

[100] - E. Capiez-Lernout, C. Soize, M. Mbaye, Analyse dynamique du désaccordage non linéaire des roues aubagées en déplacements finis. Application industrielle. Workshop du GdR Dynolin, CNAM, Paris, October 14, 2014

[99] - T.T. Le, J. Guilleminot, C. Soize (presented by J. Guilleminot), Modélisation d'interphases aléatoires dans les polymères nano-renforcés: modèle stochastique, générateur et identification inverse à l'aide de simulations par dynamique moléculaire, Workshop du GdR Polynano 3661 – Arts et Métiers Paristech, Paris, July 3, 2014.

[98] - A. Nouy (joint work with C. Soize), Tensor structured parametrization of random fields and reduced order methods for statistical inverse boundary value problems, Workshop on Model Order Reduction and Data, Laboratoire Jacques-Louis Lions, UPMC, Paris, January, 2014

[97] - G. Perrin, C. Soize, PCE identification from a set of realizations, Workshop on Numerical Methods for High-Dimensional Problems, Ecole des Ponts ParisTech, Champs-sur-Marne, Marne-la-Vallée, France, April 14-18, 2014.

[96] - Invited Lecture, C. Soize, C. Desceliers, J. Guilleminot, A. Nouy, G. Perrin, Representations of non-Gaussian positive-definite matrix-valued random fields for elliptic BVP and statistical inverse identification in high dimension using partial and limited experimental data, Workshop on Numerical Methods for High-Dimensional Problems, Ecole des Ponts ParisTech, Champs-sur-Marne, Marne-la-Vallée, France, April 14-18, 2014.

[95] - Invited lecture, C. Soize, Identification statistique inverse de modèles probabilistes en Grande Dimension Stochastique (GDS): Quantification des incertitudes en dynamique et en vibroacoustique. Champ d'élasticité stochastique mésoscopique des microstructures hétérogènes, Forum CEA, CEA/DAM/DIF, Bruyères-le-Châtel, October 1, 2014.

[94] - Invited Lecture, C. Soize, C. Desceliers, J. Guilleminot, M. T. Nguyen, J. M. Allain, H. Gharbi, Statistical inverse method for the multiscale identification of the apparent random elasticity field of heterogeneous microstructures, Workshop on Inverse problems for multiscale and stochastic problems, Ecole des Ponts ParisTech, Champs-sur-Marne, Marne-la-Vallée, France, October 2-3, 2014.

[93] - Invited Seminar, C. Soize, Statistical inverse problems in high stochastic dimension - Application to uncertainty quantification in structural dynamics, in vibroacoustics, and for random elasticity fields of microstructures. Université de Sherbrooke, Sherbrooke, Quebec, Canada, December 19, 2014.

**2013-2012**

[92] - A. Nouy (joint work with C. Soize), Random fields representations for stochastic elliptic boundary value problem and statistical inverse problems, Workshop Interplay of Theory and Numerics for Deterministic and Stochastic Homogenization, Oberwolfach, Germany, March 17-23, 2013.

[91] - A. Nouy (joint work with C. Soize), Random fields representations for stochastic elliptic boundary value problems and high-dimensional statistical inverse problems, Workshop on Partial Differential Equations with Random Coefficients, Weierstraß-Institut für Angewandte Analysis and Stochastik, Berlin, Germany, November 13-15, 2013.

[90] - G. Perrin, D. Duhamel, C. Soize, C. Funfschilling, Modeling and identification of non Gaussian multivariate random fields and application to the excitation of trains by the track irregularities, Premières Journées des Jeunes Chercheurs en Vibrations, Ecole des Ponts ParisTech, Marne-la-Vallée, April 11-12, 2013.

[89] - Invited Seminar, C. Soize, Modélisation probabiliste et quantification des incertitudes en dynamique des structures. LAMCOS Seminar, Insa de Lyon, January 26, 2012.

[88] - Invited Seminars, C. Soize, Uncertainty quantification in computational mechanics. Series of 4 seminars, Department of Higher Mathematics, Perm University, Perm, Russia, June 4-8, 2012.

[87] - J. Guilleminot J., C. Soize, On the construction of Prior Algebraic Stochastic Models for mesoscale elasticity tensor random fields; Beijing-Paris Workshop on Nano and Micro Mechanics, Université Paris-Est Marne-la-Vallée, Paris, September 6-7, 2012.

[86] - C. Soize, Identification of Bayesian posteriors of high-dimension polynomial chaos expansions of random fields and application to micromechanics, Workshop du projet "Advanced methods using stochastic modeling in high dimension for uncertainty modeling, quantification and propagation in computational mechanics of solids and fluids" (TYCHE, ANR- 10-BLAN-904), Institut Curie, Paris, December 6-7, 2012.

[85] - R. Cottereau, D. Clouteau, C. Soize, A coupling method for stochastic continuum models at different scales, Workshop du projet "Advanced methods using stochastic modeling in high dimension for uncertainty modeling, quantification and propagation in computational mechanics of solids and fluids" (TYCHE, ANR- 10-BLAN-904), Institut Curie, Paris, December 6-7, 2012.

[84] - J. Guilleminot, C. Soize, Prior stochastic models and numerical algorithms for the modeling of non-Gaussian tensor-valued random fields, Workshop du projet "Advanced methods using stochastic modeling in high dimension for uncertainty modeling, quantification and propagation in computational mechanics of solids and fluids" (TYCHE, ANR-10-BLAN-904), Institut Curie, Paris, December 6-7, 2012.

[83] - M.T. Nguyen, C. Desceliers, C. Soize, Identification of an elasticity-tensor random field at mesoscale using experimental measurements at mesoscale and at macroscale, Workshop du projet "Advanced methods using stochastic modeling in high dimension for uncertainty modeling, quantification and propagation in computational mechanics of solids and fluids" (TYCHE, ANR- 10-BLAN-904), Institut Curie, Paris, December 6-7, 2012.

**2011-2009**

[82] - Invited Seminar, C. Soize, Maximum entropy principle for stochastic models in computational sciences, Tongji University, Shanghai, China, October 26, 2010.

[81] - Invited Seminar, C. Soize, Identification of high-dimension polynomial chaos expansions of tensor-valued random fields from limited observed responses of boundary value problem. Tsinghua University, Bejing, China, October 28, 2010.

[80] - Invited Seminar, C. Soize, A short overview on the generalized probabilistic approach of uncertainties in computational dynamics. Tsinghua University, Bejing, China, October 28, 2010.

[79] - Invited Seminar, C. Soize, Stochastic reduced order models for uncertain infinite-dimensional geometrically nonlinear dynamical systems. Peking University, Bejing, China, October 29, 2010.

[78] - Invited Seminar, C. Soize, Generalized probabilistic approach of uncertainties in computational dynamics. Xi'an Jiatong University, Xi'an, China, November 4, 2010.

[77] - Invited Seminar, C. Soize, Mise en oeuvre du principe du maximum d'entropie pour la construction de modèles probabilistes en très grande dimension des incertitudes dans les modèles numériques des systèmes mécaniques complexes, Séminaire du LMT Cachan, Cachan, 26 mars, 2009.

[76] - Invited Seminar, C. Soize, Modélisation probabiliste des incertitudes et leurs propagations dans les modèles numériques des systèmes mécaniques complexes, Séminaire long, CNAM, Paris, 29 avril, 2009.

[75] - Invited Lecture, C. Soize, Identification of high dimension polynomial chaos expansion with random coefficients using partial experimental data for non-Gaussian tensor-valued random field . Application to mesoscale probabilistic modeling of non homogeneous anisotropic elastic microstructures. NSF Workshop on "Stochastic Multiscale Methods: Mathematical Analysis and Algorithms", University of Southern California, Los Angeles, August 10-11, 2009.

**2008-2006**

[74] - Series of Invited Seminars, C. Soize, Uncertainties and Stochastic modeling, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 4-8, 2008.

[73] - Invited Seminar, C. Soize, Maximum entropy principle for stochastic models in computational mechanics, One-day meeting of the GdR "Modélisations Mathématiques et Simulations Numériques liées aux problèmes de gestion des déchets nucléaires" (MoMaS), Institut Henri Poincarré, Paris, November 13, 2008.

[72] - Invited Seminar, C. Soize, Remarques sur l'efficacité de la méthode POD pour la réduction des modèles en dynamique non linéaire des structures - Modélisation stochastique multiéchelle des milieux élastiques anisotropes ayant une microstructure complexe, Séminaire invité, UMR CNRS 6174 FEMTO-ST, Université de Franche-Comté, Ecole Nationale Supérieure de Mécanique de Belfort, 30 mars, 2007.

[71] - Opening Invited Lecture, C. Soize, Méthodes probabilistes en mécanique numérique et applications industrielles, Journées Mec Proba organisées par la commission "Mécanique probabiliste des matériaux et des structures" (MPMS) de l'Association Française de Mécanique, Université de Marne-la-Vallée, 9-10 janvier, 2006.

[70] - Invited Seminar, C. Soize, Construction des modèles probabilistes, choix des représentations et applications aux modélisations des incertitudes et des milieux aléatoires en mécanique. Séminaire long de formation de la Fédération Francilienne de Mécanique, Polytechnicum de Marne-la-Vallée, 16 Mai, 2006.

[69] - Invited Seminar, C. Soize, Remarques sur les méthodes POD et KL pour la réduction de systèmes dynamiques non linéaires. Journée thématique du GDR CNRS n° 2902 sur l'Interaction Fluide-Structure : "Réduction de modèles en IFS", ENSAM Paris, 18 Mai, 2006.

[68] - Invited Seminar, C. Soize, Approches stochastiques,Identification des modèles stochastiques, Milieux aléatoires, Milieux déterministes avec incertitudes, Journée du Projet Fédératif MIVA "Méthodes d'Indentification et Validation", Fédération CNRS - F2M2SP, ENS Cachan, 29 mai, 2006.

[67] - Invited Seminar, C. Soize, Modélisation probabiliste des incertitudes en simulation numérique des systèmes complexes, 10ème Journée Scientifique "Modélisation stochastique en ingénierie", Ecole Doctorale Sciences pour l'Ingénieur, Université Blaise Pascal, Université d'Auvergne, Institut Français de Mécanique Avancée (IFMA), Clermont Ferrand, 9 juin, 2006.

[66] - Invited Seminar, C. Soize, Uncertainties and their quantification in computational mechanics, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 12, 2006.

[65] - Invited Lecture, C. Soize, Probabilistic approach and propagation of model and data uncertainties in computational structural dynamics and acoustics in low- and medium-frequency ranges for complex systems. Industrial applications, Technical conference day, CEIS (Compagnie Européenne d'Information Stratégique), Paris, October 3, 2006.

**2005-2004**

[64] - Opening Invited Lecture, C. Soize, Modèles probabilistes non paramétriques en mécanique, Journée "Mécanique numérique probabiliste" de l'association CSMA (Calcul de Structures et Modélisation), Ecole Centrale Paris, 19 janvier, 2005.

[63] - Invited Seminar, C. Soize, Uncertainties modeling in computational stochastic mechanics and applications. University of Innsbruck, Institute of Engineering Mechanics, Innsbruck, Austria, December 9, 2005.

[62] - Invited Seminar, C. Soize, Modélisation non paramétrique des incertitudes de modèle en dynamique des systèmes complexes I : Probabilités, variables aléatoires et principe du maximum d'entropie. Séminaire à l'Ecole Nationale Polytechnique d'Algérie, Alger, 18 Avril, 2004.

[61] - Invited Seminar, C. Soize, Modélisation non paramétrique des incertitudes de modèle en dynamique des systèmes complexes II : Matrices aléatoires et principe du maximum d'entropie. Applications à la dynamique linéaire et non linéaire. Séminaire à l'Ecole Nationale Polytechnique d'Algérie, Alger, 19 avril, 2004.

[60] - Invited Seminar, C. Soize, Modélisation non paramétrique des incertitudes de modèle en dynamique des systèmes complexes III : Applications aux systèmes dynamiques incertains dans le domaine des moyennes fréquences; Séminaire à l'Ecole Nationale Polytechnique d'Algérie, Alger, 20 avril, 2004.

[59] - Invited Seminar, C. Soize, Modélisation non paramétrique des incertitudes de modèle en dynamique des systèmes complexes IV : Désaccordage dynamique des structures à géométrie cyclique dû aux incertitudes. Application aux turbomachines. Séminaire à l'Ecole Nationale Polytechnique d'Algérie, Alger, 21 avril, 2004.

[58] - Invited Seminar, C. Soize, Modélisation non paramétrique des incertitudes de modèle en dynamique des systèmes complexes V : Application à la dynamique linéaire des structures avec assemblages complexes et applications à la dynamique non linéaire de circuit primaire des réacteurs. Séminaire à l'Ecole Nationale Polytechnique d'Algérie, Alger, 22 avril, 2004.

[57] - Invited Seminar, C. Soize, Modélisation non paramétrique des incertitudes de modèle en dynamique linéaire et non linéaire des systèmes mécaniques complexes. Séminaire à l'Université A Mira de Béjaia, Algérie, 15 mai, 2004.

[56] - Invited Lecture, C. Soize, Une nouvelle classe de champ stochastique non gaussien pour la modélisation des milieux aléatoires élastiques anisotropes non homogènes. Groupes de Travail MECAMAT "Approches probabilistes en Mécanique des Milieux Hétérogènes", Ecole Nationale des Ponts et Chaussées, 1-2 Juin, 2004.

[55] - Invited Seminar, C. Soize, Nonparametric modeling of model uncertainties in linear and nonlinear dynamics for complex mechanical systems, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 17, 2004.

[54] - Invited Seminar, C. Soize, Non Gaussian matrix-valued random fields for modeling elliptic stochastic partial differential operators. Seminar, University of Innsbruck, Institute of Engineering Mechanics, Innsbruck, Austria, September 20, 2004.

**2003-2002**

[53] - Invited Seminar, C. Soize, Modélisation probabiliste des incertitudes en dynamique linéaire et non linéaire des systèmes mécaniques . Séminaire du Laboratoire de Mécanique de Rouen ,CNRS UMR 6138, Insa Rouen, 27 Mars, 2003.

[52] - Invited Seminar, C. Soize, Uncertain dynamical systems in the medium-frequency range. Seminar, University of Innsbruck, Institute of Engineering Mechanics, Innsbruck, Austria, September 1, 2003.

[51] - Invited Lecture, C. Soize, Model uncertainty issues for predictive models. Workshop on Elements of Predictability, The Johns Hopkins University, November 13-14, 2003.

[50] - Invited Seminar, C. Soize, Random uncertainties modeling in dynamical system using a nonparametric approach. Seminar, University of Innsbruck, Institute of Engineering Mechanics, Innsbruck, Austria, April 4, 2002.

[49] - Invited Seminar, C. Soize, Théorie des matrices aléatoires et modélisation probabiliste des incertitudes en élastodynamique. Séminaire Probabilités-Statistiques, Université de Marne la Vallée, 17 Mai, 2002.

[48] - E. Capiez-Lernout et C. Soize, Une approche probabiliste non paramétrique du phénomène de désaccordage des structures à géométrie cyclique, Journée "Jeunes Chercheurs" organisée par l'Ecole Doctorale MODES de l'Université de Marne-la-Vallée et de l'Ecole Nationale des Ponts et Chaussées, Université de Marne-la-Vallée, 13 Juin, 2002.

[47] - Invited Seminar, C. Soize, Nonparametric model of random uncertainties in dynamical systems: an overview. Seminar, Sandia Laboratory, Albuquerque, New Mexico, USA, July 16, 2002.

**2001-2000**

[46] - C. Soize editeur, Actes de la Journée Nationale sur La modélisation du comportement et de la résistance des liaisons et des assemblages mécaniques : Etat de l'art et perspectives. Journée organisée par la commission Structures de l'AAAF, Onera, Châtillon, 22 Mars, 2001.

[45] - Invited Seminar, C. Soize, Théorie des matrices aléatoires et modélisation non paramétrique des incertitudes aléatoires en élastodynamique transitoire. Séminaire Descartes, Polytechnicum de Marne la Vallée, 13 Décembre, 2001.

[44] - Invited Seminar, C. Soize, Un Modèle non paramétrique des incertitudes aléatoires pour les modèles matriciels réduits en dynamique des structures. Séminaire de Mécanique Ile-de-France Sud, Ecole Polytechnique, 2 Mars, 2000.

[43] - Invited Seminar, C. Soize, Main difficulties in the mid-frequency range for structural-dynamics and structural-acoustics problems: Structural complexity modeling, random uncertainties, reduced matrix models. Seminar, Johns Hopkins University, Baltimore, USA, April 18, 2000.

[42] - Invited Lecture, C. Soize, Modélisation et méthodes probabilistes en dynamique et vibration des structures. Journée AAAF sur les Approches probabilistes en calcul des structures, Chatillon, 18 Mai, 2000.

[41] - Invited Seminar, C. Soize, Modèle non paramétrique des incertitudes aléatoires en dynamique des structures. Séminaire du laboratoire LMGC, Université de Montpellier II, 26 Mai, 2000.

[40] - Invited Lecture, C. Soize, Modèle probabiliste non paramétrique des incertitudes de modélisation en dynamique transitoire des structures. Journée MV2 sur les Approches robustes en dynamique des structures, Pôle universitaire Léonard de Vinci, Paris la Défense, 14 Décembre, 2000.

**1999-1997**

[39] - Invited Seminar, C. Soize, Modélisation des systèmes vibroacoustiques ayant une complexité structurale en basse et moyenne fréquence. Séminaire de Mécanique CNAM-Onera, Cnam Paris, 12 Mars, 1999.

[38] - Invited Lecture, C. Soize, Modélisation en vibration et vibroacoustique des structures ayant une complexité structurale en basse et moyenne fréquence. Journées Scientifiques GAMNI-SMAI sur la Modélisation numérique en acoustique, aéroacoustique et vibrations, Institut Henri Poincaré, Paris, 10 et 11 Juin, 1999.

[37] - Invited Lecture, C. Soize, Identification dynamique modale des structures non linéaires par une méthode de linéarisation stochastique avec paramètres aléatoires. Table Ronde MV2 sur la Modélisation et identification des structures et des systèmes vibrants non linéaires, Pôle universitaire Léonard de Vinci, Paris, 2 Décembre, 1999.

[36] - Invited Lecture, C. Soize, Modélisation vibroacoustique en moyenne fréquence pour les structures complexes. Table Ronde MV2 sur la Modélisation vibroacoustique des structures en hautes et moyennes fréquences, Pôle universitaire Léonard de Vinci, Paris, 26 Mars, 1998.

[35] - Invited Seminar, C. Soize, Dynamique des structures et élastoacoustique en moyenne fréquence. Séminaire, Département de Mathématiques Appliquées, Université de Saint Jacques de Compostelle, Espagne, 13-17 Avril, 1998.

[34] - Invited Lecture, C. Soize, Dynamique des structures: Rôle et modélisation du flou structural en basse et moyenne fréquence, Colloque ONERA, Centre des Congrès de la Villette, Paris, 2-3 Avril, 1997.

[33] - Invited Seminar, C. Soize, Problème de Neumann extérieur lié à l'équation d'Helmholtz pour l'élastoacoustique externe; formulation par équations intégrales. Séminaire, Département de Mathématiques Appliquées, Université de Saint Jacques de Compostelle, Espagne, 25 Mai - 1 Juin, 1997.

**1996-1995**

[32] - Invited Lecture, C. Soize, Identification modale des systèmes dynamiques faiblement non linéaires en utilisant une méthode de linéarisation stochastique à paramètres aléatoires. Sixième Séminaire Scientifique du C.E.M.I.F. sur l'Analyse Stochastique des Systèmes Non-Linéaires, EDF/DER, Clamart, 2 Mai 1996.

[31] - Invited Seminar, C. Soize, Introduction à la théorie des processus stochastiques, à la théorie du signal aléatoire et à la dynamique stochastique. Séminaires, Département de Mathématiques Appliquées, Université de Saint Jacques de Compostelle, Espagne, 8-10 mai, 1996.

[30] - Invited Lecture, C. Soize et O. Lefur, Modal identification of weakly nonlinear multidimensional dynamical systems using a stochastic linearization method with random coefficients, Ninth Workshop on Dynamics and Control, Rio de Janeiro, Brazil, August 12-14, 1996.

[29] - Invited Seminars, C. Soize, *Fundamentals of Random Signal Analysis, Application to Modal Identification in Structural Dynamics*, Course of the School on "Structural Dynamics and Structural Acoustics", Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 19-23, 1996.

[28] - Invited Seminar, C. Soize, (1) Boundary integral formulation for the exterior Neumann problem related to the Helmholtz equation. (2) Structural acoustics for external problems in LF range. Seminars, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 27, September 2-6, 1996.

[27] - Invited Seminar, C. Soize, Random vibration and application to structures submitted to turbulent boundary layer excitations. Seminar, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, September 4, 1996.

[26] - Invited Lecture, C. Soize, Méthodes de prévision en élastoacoustique. Journée de pésentation des travaux de la Commission de Validation des Prologiciels Vibroacoustiques, SFM, Cetim-Senlis, 29 Novembre, 1996.

[25] - Invited Lecture, C. Soize, Structural acoustics: Advanced formulations and numerical methods in the MF range, noise reduction using active control, XVIII Congresso Nacional de Matemática Aplicada e Computacional, CNMAC 95, Curitiba, PR, Brazil, August 28 - September 1, 1995.

[24] - Invited Seminars, C. Soize, (1) Random signal processing and modal identification of dynamical systems. (2) Formulation and numerical methods in structural acoustics for the medium-frequency range. (3) Reduction of radiated noises by using distributed active control of structural vibration. Seminars, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, September 2-8, 1995.

**1994-1989**

[23] - Invited Lecture, C. Soize, An explicit steady state solution of the FKP equation for nonlinear stochastic dynamical systems. A uniqueness theorem, XVII Congresso de Matematica Aplicada e Computacional, CNMAC 94, Vitoria, ES, Brazil, August 29 - September 2, 1994.

[22] - Invited Seminar, C. Soize, Random signal analysis and linear stochastic dynamics. Seminar, Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, September 6, 1994.

[21] - D.A. Russel, V.W. Sparrow, C. Soize, A Penn State/Onera exchange: Mathematical formulation for modeling the type 1 fuzzy law parameters for a continuous line fuzzy attachment, Presentation at U.S./France Exchange Meeting, Airlie House Conference Center, November 17, 1993.

[20] - A. Desanti, C. Soize, Modèle de prévision hydro-élastoacoustique moyenne fréquence de Milady, Journée de Cadarache sur la Discrétion Acoustique, 12-14 Juin, 1990.

[19] - C. Soize, J.M. David, A. Desanti, Méthodes numériques prévisionnelles en élastoacoustique BF, MF et HF, Journée sur la vibroacoustique: résulats et perspectives, Onera, Châtillon, 15 Juin, 1990.

[18] - Invited Lecture, C. Soize, Couplage direct fluide-structure en aéroélasticité transsonique, Colloque Onera, Châtillon, 25 et 26 Avril, 1989.

[17] - J.M. David, A. Desanti, C. Soize, Etude par modèle numérique du comportement hydro-élastoacoustique de la pompe hélice échelle 0.15 en basses fréquences et comparaisons expérimentales, Journée de Cadarache sur la Discrétion Acoustique, 25-27 Avril, 1989.

**1988-1987**

[16] - C. Soize, Couplage fluide structure MF - HF, évolution vers les hautes fréquences, Journée Thématique DRET sur l'*Intéraction fluide-structure*, Paris, 21 Avril, 1988.

[15] - J.M. David, A. Desanti, C. Soize, Calcul de la réponse hydro-élastique à la couche limite en moyenne fréquence du dome sonar Dauphin, Journée de Cadarache sur la Discrétion Acoustique, 26-28 Avril, 1988.

[14] - D. Felix, F. Chabas, C. Soize, Influence de la complexité structurale sur le rayonnement de la coque forte du MN2, Journée de Cadarache sur la Discrétion Acoustique, 26-28 Avril, 1988.

[13] - J.M. David, A. Desanti, C. Soize, Etude du transfert hydro-élastoacoustique de la pompe hélice Agosta en basses fréquences, Journée de Cadarache sur la Discrétion Acoustique, 26-28 Avril, 1988.

[12] - Invited Lecture, C. Soize, Exact steady state solution of FKP equation in higher dimension for a class of non-linear Hamiltonian dissipative dynamical system excited by a Gaussian white noise, First European Seminar on *Effective Stochastics*, Delphi, Greece, October 3-7, 1988.

[11] - F. Poirion, C. Soize, Numerical methods and mathematical aspects for simulation of homogeneous and non homogeneous Gaussian vector fields, First European Seminar on *Effective Stochastics*, Delphi, Greece, October 3-7, 1988.

[10] - C. Soize, F. Chabas, A. Desanti, Prise en compte dans la méthode des éléments finis de sous-systèmes mécaniques identifiés par leur impédance de frontière, Journée de Cadarache sur la Discrétion Acoustique, Mai 1987.

[9] - C. Soize, A. Desanti, Couplage fréquentiel moyen entre sous-systèmes, Journée de Cadarache sur la Discrétion Acoustique, Mai 1987.

[8] - C. Soize, F. Chabas, Loi de comportement de flou probabiliste à mémoire spatiale, Journée de Cadarache sur la Discrétion Acoustique, Mai 1987.

[7] - J.M. David, C. Soize, Effets sur le rayonnement de l'ovalisation d'une tranche 3D dans les vibrations poutre basses fréquences de MN2, Journée de Cadarache sur la Discrétion Acoustique, Mai 1987.

[6] - C. Soize, Steady state solution of the Fokker-Planck equation in higher dimension, Publication de la R.C.P de Mécanique Aléatoire, LMT Cachan, Décembre 1987.

**1986-1979**

[5] - A. Desanti, C. Soize, Calculs hydro-élastoacoustiques, Journée de Cadarache sur la Discrétion Acoustique, 22-24 Avril, 1986.

[4] - C. Soize, Modélisation probabiliste du flou structural en dynamique linéaire des systèmes mécaniques complexes, Journée de Cadarache sur la Discrétion Acoustique, 22-24 Avril, 1986.

[3] - C. Soize, J.M. David, A. Desanti, Réponse aléatoire stationnaire des systèmes mécaniques linéaires excités par un champ stochastique, Journée de Cadarache sur la Discrétion Acoustique, 22-24 Avril, 1986.

[2] - C. Soize, Quelques applications de la mécanique aléatoire à l'étude des ouvrages, Journées sur l'Approche Probabiliste de la Sécurité pour les Etudes de Mécanique des Sols-Structures, École Centrale des Arts et Manufactures, 20-22 Juin, 1979.

[1] - E. Sfintesco, C. Soize, ECCS recommendations for the calculation of wind effects on building and structures, Fifth International Conference on Wind Engineering, Colorado State University, Fort Collins, Colorado USA, July 8-14, 1979.

### 7.8. Courses and Lecture Notes

[1] - C. Soize, *Éléments de la théorie des probabilités, des processus stochastiques et d'analyse spectrale. Applications à la mécanique*. Cours du Centre des Hautes Études de la Construction, CHEM, Paris, **1978**.

[2] - C. Soize, *Mécanique aléatoire et applications à la dynamique des structures*, 287 pages, cours de 3ème année de l'École Centrale des Arts et Manufactures, département Génie Civil, Chatenay Malabry, **1978**.

[3] - C. Soize, *Eléments mathématiques de la théorie du signal*, 311 pages, cours de 3ème année de l'ENSTA, département Mathématiques Appliquées, édition de l'ENSTA, Paris, **1981**.

[4] - C. Soize, *Mécanique aléatoire*, 1ère Édition, 220 pages, cours de 3ème année de l'École Centrale des Arts et Manufactures, département Énergétique, Chatenay Malabry, **1982**.

[5] - C. Soize, *Eléments mathématiques de la théorie déterministe et aléatoire du signal*, 380 pages, cours de tronc commun de 2ème année de l'ENSTA, département Mathématiques Appliquées, publication numéro **703**, édition de l'ENSTA, Paris, **1983**.

[6] - C. Soize, *Mécanique aléatoire*, 2ème édition, 360 pages, cours de 3ème année de l'École Centrale des Arts et Manufactures, département Énergétique, Chatenay Malabry, **1985**.

[7] - C. Soize, *Eléments mathématiques de la théorie déterministe et aléatoire du signal*, 2ème édition revue et modifiée, 370 pages, cours de tronc commun de 2ème année de l'ENSTA, département Mathématiques Appliquées, publication numéro **739**, édition de l'ENSTA, Paris, **1985**.

[8] - C. Soize, *Signaux aléatoires, travaux dirigés*, 80 pages, travaux dirigés de tronc commun de 2ème Année de l'ENSTA, département Mathématiques Appliquées, publication numéro **742**, édition de l'ENSTA, Paris, **1985**.

[9] - C. Soize et al., *Problèmes d'hydrodynamiques navale et méthodes numériques associées*, (en collaboration), cours de 3ème année de l'ENSTA, département Mathématiques Appliquées, publication numéro **749**, édition de l'ENSTA, Paris, **1985**.

[10] - C. Soize, *Processus stochastique et méthodes de résolution des problèmes aléatoires*, 390 pages, cours de 3ème année de l'Ecole Centrale des Arts et Manufactures, département Énergétique, options Océan et Modélisation Mécanique des Structures, Chatenay Malabry, **1986**.

[11] - C. Soize, *Signaux aléatoires, travaux dirigés avec corrigés*, 106 pages, travaux dirigés de tronc commun de 2ème année de l'ENSTA, département Mathématiques Appliquées, publication numéro **786**, édition de l'ENSTA, Paris, **1988**.

[12] - C. Soize, *Méthodes mathématiques de la théorie et du traitement du signal*, 598 pages, cours de tronc commun de 2ème année de l'ENSTA, département Mathématiques Appliquées, publication numéro **824**, édition de l'ENSTA, Paris, **1991**.

[13] - C. Soize, *Signaux aléatoires*, 85 pages, cours de 3ème année de l'Ecole Centrale des Arts et Manufactures, département Mécanique et Matériaux, option Modélisation Mécanique des Structures (MMS), Chatenay Malabry, **1994**.

[14] - C. Soize, *Méthodes d'études des problèmes classiques de dynamiques stochastiques*, séminaire *Sécurité probabiliste des structures*, X Collège de Polytechnique, Ecole Polytechnique, Palaiseau, bf 1994.

[15] - C. Soize, *Basic notions of random signal theory and modal parameter estimation from the frequency response functions*, 85 pages, Minicurso : *Modelagem em Engenharia*, Congresso Nacional de Matemática Aplicada e Computacional, CNMAC 95, De 28 de agosto a 01 de septembro de 1995, Curitiba - PR, Brésil (Edité par Universidade Federal do Paranà - UFPR, Sociedade Brasileira de Matemàtica Aplicade e Computacional - SBMAC), **1995**.

[16] - C. Soize, *Signaux aléatoires, cours et travaux dirigés*, 103 pages, cours de tronc commun de 1ère année de l'ENSTA, département Mathématiques, publication numéro **886**, édition de l'ENSTA, ISBN 2-7225-0886-9, Paris, **1996**.

[17] - C. Soize, *Fundamentals of Random Signal Analysis, Application to Modal Identification in Structural Dynamics*, Université Paris-Est-Marne-la-Vallée (UPEM), Paris, France, **1997**. Course given in the School on "Structural Dynamics and Structural Acoustics", Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 19-23, **1996**.

[18] - C. Soize, *Processus stochastiques et réponses dynamiques des structures*, séminaire *Sécurité probabiliste des structures et systèmes*, X Collège de Polytechnique, Ecole Polytechnique, Palaiseau, **1998**.

[19] - R. Ohayon et C. Soize, *Interaction fluide-structure et vibroacoustique*, cours de DEA "Dynamique des structures et des systèmes couplés (DS2C)", ECP, CNAM, ENPC, ENSTA, université Paris XII, Ecole Polytechnique, **2000**.

[20] - C. Soize, *Dynamique des structures* : Cours de maîtrise de Génie des Systèmes Industriels, université de Marne la Vallée (**2000**), cours de l'UFR Ingénieurs 2000 de l'université de Marne la Vallée : 2-ème année de la filière Génie Mécanique (**2001**), 3-ème année de la filière Maintenance et Fiabilité des Processus Industriels (**2001**).

[21] - C. Soize, *Probabilités et modélisation des incertitudes, Eléments de base et concepts fondamentaux*, cours de l'école doctorale MODES, *Probabilité et Mécanique - I*, Polytechnicum de Marne-la-Vallée, Mai **2003**.

[22] - C. Soize, *Problématique et méthodologie des modélisations probabilistes en mécanique numérique*, cours de l'école doctorale MODES, *Méthodes numériques avancées*, Université Paris-Est, Avril **2008**.

[23] - C. Soize, *Approche probabiliste non paramétrique des incertitudes sur les paramètres des modèles et des incertitudes induites par les erreurs de modélisation, dans les modèles de simulation numériques de systèmes complexes*. Cours de formation *Propagation des incertitudes dans les systèmes - Une approche probabiliste* X Collège de Polytechnique, Paris, **2011** et **2014**.

### 7.9. International courses

[1] - Sequence of 24 hours of a course in the School on "Structural Dynamics and Structural Acoustics", Department of Engineering Mechanics, PUC-Rio University, Rio de Janeiro, Brazil, August 19-23, **1996**. Edited as: C. Soize, *Fundamentals of Random Signal Analysis, Application to Modal Identification in Structural Dynamics*, Université Paris-Est-Marne-la-Vallée (UPEM), Paris, France, 1997.

[2] - Sequence of 24 hours of a course entitled *Uncertainties modeling in mechanics*, PUC Rio university, Rio de Janeiro, Brazil, August 18-26, **2004**.

[3] - Sequence of 18 hours of a course entitled *Uncertainties modeling and uncertainties propagation in computational mechanics*, PUC Rio university, Rio de Janeiro, Brazil, July 31 - August 2, **2006**.

[4] - Short course of 8 hours on *Uncertainty Quantification in Mechanics: Theoretical and Computational Aspects* organized in collaboration with R. Ghanem, 9th U.S. National Congress on Computational Mechanics (9th USNCCM), San Francisco, California, USA, July 22 - 26, **2007**

[5] - Sequence of 15 hours of a course entitled *Uncertainties and stochastic modeling*, PUC Rio university, Rio de Janeiro, Brazil, August 4-7, **2008**.

[6] - Short course of 8 hours on *Uncertainty Quantification in Mechanics: Theoretical and Computational Aspects* organized in collaboration with R. Ghanem, 10th U.S. National Congress on Computational Mechanics (10th USNCCM), Columbus, Ohio, USA, July 15, **2009**.

[7] - Sequence of 15 hours of a course entitled *Stochastic models in computational mechanics*, PUC Rio university, Rio de Janeiro, Brazil, August 2-6, **2010**.

[8] - Sequence of 6 hours of a course entitled *Probabilistic modeling of uncertainties in computational mechanics and their propagation in complex dynamical systems; industrial applications; recent novel methods of analysis*, in the Advanced School on "Nondeterministics Mechanics" coordinated by I. Elishakoff and C. Soize, International Centre for Mechanical Sciences, CISM, Udine, Italy, May 9-13, **2011**.

[9] - Sequence of 8 hours of a course entitled *Stochastic models of uncertainties in computational mechanics and nonparametric probabilistic approaches*, Oberwolfach Seminar on "Spectral Methods of Uncertainty Quantification" organized by Omar M. Knio (JHU, Baltimore) and Olivier P. Le Maitre (LIMSI, Paris). Mathematisches Forschungsinstitut Oberwolfach Schwarzwaldstr (Lorenzenhof), Oberwolfach-Walke, Germany, June 12-18, **2011**.

[10] - Short course of 6 hours on *Uncertainty Quantification in Mechanics: Theoretical and Computational Aspects* organized in collaboration with R. Ghanem, 11th U.S. National Congress on Computational Mechanics (11th USNCCM), University of Minnesota, Minneapolis, Minnesota, USA, July 24, **2011**.

[11] - Course of 36 hours on *Uncertainty Quantification in Computational Mechanics*, invited by Prof. Charbel Farhat, Army High Performance Computing Research Center (AHPCRC) at Stanford University, Stanford, USA, February 02-20, **2015**.

[12] - Course of 18 hours on *Uncertainty Quantification in Computational Mechanics*, invited by Prof. Charbel Farhat, Army High Performance Computing Research Center (AHPCRC) at Stanford University, Army Research Laboratory (ARL), location of the Course: Aberdeen Proving Ground (APG), Aberdeen, Maryland, USA, June 21-24, **2016**.

[13] - Course of 4 hours on *Probabilistic Learning on Manifolds* in Uncertainty Quantification Summer School, organized by R. Ghanem (USC) and Habib Najm (Sandia), University of Southern California, August 8-10, **2018**.

[14] - Course of 5 lectures given in the *INI Workshop: Introduction to Uncertainty Quantification in Mechanics of Materials (USMW01)*, Isaac Newton Institute, Cambridge University, July 10-14, **2023**.

## 8. CONTRACTS AND TECHNICAL REPORTS

From 1981 to 2000 at Onera, author or co-author of 62 technical reports with contracts.

From 2001 to 2019 at the Université Paris-Est Marne-la-Vallée.

From 2020 at Université Gustave Eiffel:

[1] - C. Soize, Modèle probabiliste mixte non paramétrique - paramétrique des incertitudes en dynamique non linéaire des structures, Contrat d'association EDF R&D / Département Acoustique et Mécanique Vibratoire et Université de Marne la Vallée / Laboratoire de Mécanique, Contrat EDF/R&D : T62/E28858, Contrat UMLV : 182 APS, Lot 1, Décembre 2001.

[2] - C. Desceliers et C. Soize, Modèle probabiliste mixte non paramétrique - paramétrique des incertitudes en dynamique non linéaire transitoire d'un circuit primaire principal, Contrat d'association EDF R&D / Département Acoustique et Mécanique Vibratoire et Université de Marne la Vallée / Laboratoire de Mécanique, Contrat EDF/R&D : T62/E28858, Contrat UMLV : 182 APS, Lot 2, Décembre 2002.

[3] - C. Soize, Bruit propre d'un dôme sonar lié à la turbulence de la couche limite. Contrat 2003 DCN/ Bassin d'Essais des Carènes et l'Université de Marne la Vallée / Laboratoire de Mécanique.

[4] - Soize C., Capiez-Lernout E. (équipe française), Schueller G.I., Pellissetti M. (équipe étrangère), Une nouvelle méthode de calcul numérique en dynamique stochastique pour l'ingénierie. PAI AMADEUS Program of Scientific Cooperation between Austria and France 2003-2004.

[5] - C. Soize, Modélisation de véhicules automobiles en vibroacoustique numérique avec incertitudes et validation expérimentale, Contrat PSA /département DPTA/DMFV/ACV et l'Université de Marne la Vallée / Laboratoire de Mécanique, 31 octobre 2003 pour 3 ans 2003-2006 correspondant à la thèse CIFRE de Jean-François DURAND.

[6] - C. Soize, Simulation numérique des cloisons légères soumises à des chargements thermiques en présence d'incertitudes de modélisation - validation expérimentale. Application : tenue au feu des cloisons en plaques de plâtre assujetties à une ossature légère métallique, Contrat CSTB /département Structure au feu et l'Université de Marne la Vallée / Laboratoire de Mécanique, 14 février 2003 pour 3 ans 2003-2006 correspondant à la thèse de Seddik SAKJI.

[7] - C. Soize, Modélisation réduite probabiliste de structures complexes pour la prévision des fonctions de transfert vibroacoustiques de carrosseries automobiles, Contrat PSA / département DPTA/DMFV/ACV et l'Université de Marne la Vallée / Laboratoire de Mécanique, Décembre 2005 - Décembre 2008 correspondant à la thèse CIFRE de Charles FERNANDEZ.

[8] - C. Soize, Prise en compte des incertitudes dans les calculs couplés fluide-structure d'assemblages combustible nucléaire, Contrat EDF R&D / Clamart et l'Université de Marne la Vallée / Laboratoire de Mécanique, Octobre 2005 - Septembre 2008 correspondant à la thèse CIFRE de Anas BATOU.

[9] - C. Soize, E. Capiez-Lernout, Conception robuste en dynamique des systèmes mécaniques complexes incertains (CORODYNA), Contrat ANR 2005, Projet : NT05-2-41777, Coordinateur scientifique du projet C. Soize, Janvier 2006 - Décembre 2008.

[10] - C. Soize, Conception robuste en vibrations des roues aubagées, Contrat Turmomeca, Groupe Safran et l'Université de Marne la Vallée / Laboratoire de Mécanique, Octobre 2006 - Décembre 2009 correspondant à la thèse CIFRE de Moustapha MBAYE.

[11] - C. Soize, C. Desceliers, Model and experimental validation for the biomechanical ultrasonic characterization in presence of uncertainties: application to bone (BONECHAR), Contrat 2007-2009 ANR 2006, Projet : BLAN06-2-144777, Partenaires : Paris 12 (laboratoire de biomécanique et biomatériaux ostéo-articulaires, responsable scientifique, S. Naili), Paris 6 (Laboratoire d'imagerie paramétrique, responsable scientifique Q. Grimal) et Université de Marne la Vallée (laboratoire de Mécanique, responsable scientifique C. Soize). Coordinateur du projet S. Naili (Paris 12).

[12] - C. Soize, Structuration automatique et robuste pour le dimensionnement vibroacoustique des structures de véhicules en basses fréquences. Contrat PSA / département DPTA/DMFV/ACV et l'Université de Marne la Vallée / Laboratoire de Mécanique, Décembre 2006 - Décembre 2009 correspondant à la thèse CIFRE de Morad KASSEM.

[13] - C. Soize, Nonlinear wave propagation in complex media. Application to sound propagation in urban environments (Propagation d'ondes non linéaires en milieu complexe. Application à la propagation en environnement urbain). Contrat CSTB /département Acoustique de Grenoble et l'Université Paris-Est Marne la Vallée / Laboratoire de Mécanique, octobre 2006 pour 3 ans 2006-2009 correspondant à la thèse CIFRE de Thomas LEISSING.

[14] - C. Soize, C. Desceliers, Méthodologie d'implémentation des modèles probabilistes des incertitudes dans les modèles numériques de crash. Contrat de recherche 07CTR141 entre PSA Peugeot Citroen et l'Université Paris-Est Marne la Vallée / Laboratoire de Mécanique, juin 2007 - février 2008.

[15] - C. Soize, Modélisation probabiliste et validation expérimentale de la stabilité d'une cloison de grande hauteur en plaques de plâtre sur ossature métallique soumise à un incendie naturel, Contrat CSTB /département Structure au feu et l'Université Paris-Est Marne la Vallée / Laboratoire de Mécanique, octobre 2007 pour 3 ans 2007-2010 correspondant à la thèse de Thanh Trung DO.

[16] - C. Soize, C. Desceliers, Solveur stochastique pour l'analyse robuste du Crash avec modèle numérique incertain. Contrat de recherche 09CTR483 entre PSA Peugeot Citroen et l'Université Paris-Est Marne la Vallée / Laboratoire Modélisation et Simulation Multi-Echelle, Université Paris-Est Marne-la-Vallée, 2009.

[17] - C. Soize, C. Desceliers, Analyse de la performance et du risque associés à l'intégrité du puits dans le contexte du stockage géologique du CO2 : approche prédictive et probabiliste. Contrat de recherche 08CTR303 avec le Conseil Général de Seine-et-Marne, et contrat de recherche 09CTR192 avec la Société OXAND S.A., Université Paris-Est Marne la Vallée / Laboratoire Modélisation et Simulation Multi-Echelle, 2008 - 2010, Université Paris-Est Marne-la-Vallée, décembre 2009.

[19] - C. Soize, Réduction modale basée sur une séparation des modes structuraux globaux et locaux imbriqués en vibroacoustique numérique pour la réponse statistique basse et moyenne fréquence de systèmes complexes incertains. Application à l'Avance de Phase en synthèse automobile. Contrat de recherche 09CTR418 entre PSA / département DPTA/DMFV/ACV et l'Université de Marne la Vallée / Laboratoire Modélisation et Simulation Multi-Echelle, Octobre 2009 - Octobre 2012 correspondant à la thèse CIFRE de Adrien ARNOUX.

[20] - C. Soize, Modélisation spatiale et temporelle de la variabilité géométrique des voies ferroviaires françaises, Contrat de recherche 10CTR437 entre la SNCF, l'ENPC et l'UPEMLV, octobre 2010 pour 3 ans 2010-2013 correspondant à la thèse de Guillaume PERRIN.

[21] - C. Soize, A. Batou, C. Desceliers, J. Guilleminot, J. Yvonnet, Méthodes avancées utilisant les modélisations stochastiques en grande dimension pour la modélisation, la quantification et la propagation des incertitudes en mécanique numérique des solides et des fluides (TYCHE), Contrat ANR 2010 BLAN 090401, Coordinateur scientifique du projet C. Soize, Décembre 2010 - Août 2013.

[22] - A. Batou, C. Soize, Pour des simulations crédibles via la corrélation calcul-essai et l'estimation des incertitudes en dynamique des structures (SYCODYN), Contrat ANR 2012 FUI12, Janvier 2012 - Décembre 2014.

[23] - C. Soize, Identification stochastique inverse de modèles cinétiques d'évolution de la géometrie de la voie sous l'effet de la dynamique du train, Contrat de recherche 2012-00223 entre la SNCF et l'UPEMLV, octobre 2012 pour 3 ans 2012-2015 correspondant à la thèse de Nicolas LESTOILLE.

[24] - A. Batou, E. Capiez-Lernout, J.-F. Deu, C. Soize, Réduction de modèle pour les structures dynamiques à forte densité modale en basses fréquences (HIMODE), Contrat ANR 2013, Janvier 2013 - Décembre 2015.

[25] - A. Batou, C. Soize, Uncertainty quantification for multibody dynamical systems, Korea-France STAR Program, Prof. Hong Hee Yoo and Mr. Chankyu Choi (Hanyang University, Seoul), Prof. C. Soize and Dr. A. Batou (Université Paris-Est Marne-la-Vallée), April 2013 - March 2015.

[26] - C. Soize, Action du vent sur les structures de grandes dimensions, simplification et optimisation du chargement aérodynamique sur les toitures de stade. Contrat de recherche entre le CSTB (établissement de Nantes) et l'UPEM (MSME), 1 janvier 2015 - 1 février 2018, correspondant à la thèse de Wafaa KASSIR.

[27] - C. Soize, Diagnostic de sous-systèmes de matériel roulant ferroviaires à l'aide de modèles stochastiques inverses, Contrat de recherche 2012-00223 entre la SNCF et l'UPEM, 01 janvier 2016 au 31 janvier 2019, correspondant à la thèse CIFRE de David LEBEL.

[28] - C. Soize, E. Capiez-Lernout, la modélisation du désaccordage des roues aubagées en dynamique non linéaire, Contrat de recherche 2017-2020 entre SAFRAN TECH et l'UPEM, 01 février 2017 au 31 janvier 2020, correspondant à la thèse CIFRE de Anthony PICOU.

[29] - C. Soize, Robust design of nacelle noise reduction technologies, Contrat de recherche 2017-2020 entre Airbus et l'UPEM, 01 janvier 2017 au 31 janvier 2020, correspondant à la thèse CIFRE de Vincent DANGLA.

[30] - C. Soize, C. Desceliers, Modélisation vibro-acoustique multi-fréquentielle, Contrat de recherche 2017-2020 entre PSA et l'UPEM, 01 janvier 2017 au 31 janvier 2020, correspondant à la thèse CIFRE de Justin REYES.

[31] - C. Soize, Optimisation de la vitesse des trains vis-à-vis de leur comportement dynamique sur les voies, Contrat de recherche 2019-2023 entre la SNCF et l'UPEM, 01 décembre 2019 au 31 mars 2023, correspondant à la thèse CIFRE de Julien NESPOULOUS.

[32] - C. Desceliers, C. Soize, Méthodes avancées pour la modélisation du bruit moteur et avion (MAMBO) , Contrat de recherche 2021-2024, Airbus, DGA, correspondant à la thèse de Amritesh SINHA.

[33] - G. Perrin, C. Soize, Optimisation en temps réel des commandes de vitesse de trains pour limiter la consommation énergétique, tenant compte des informations fournies par des capteurs embarqués, Contrat de recherche 2022-2026 entre la SNCF et l'Université Gustave Eiffel, 01 décembre 20122 au 31 mars 2026, correspondant à la thèse CIFRE de Romain Jorge Do MARCO.

## 9. VISITING SCIENTIST AND VISITING PROFESSOR

. Visiting Professor, Stanford University, Stanford, USA, 2025.
. Visiting Professor, University of Southern California, Los Angeles, USA, 2024.
. Visiting Professor, Federal University of Fluminense, Rio de Janeiro, Brazil, 2024.
. Visiting Professor, Stanford University, Stanford, USA, 2022
. Visiting Professor, Duke University, Durham, USA, 2022.
. Visiting Professor, University of Southern California, Los Angeles, USA, 2019.
. Visiting Professor, Duke University, Durham, USA, 2019.
. Visiting Professor, University of Liege, Belgium, 2019
. Visiting Professor, Tongji University, Shanghai, China, 2019.
. Visiting Professor, Stanford University, Stanford, USA, 2019
. Visiting Professor, University of Southern California, Los Angeles, USA, 2018.
. Visiting Professor, Duke University, Durham, USA, 2018.
. Visiting Professor, Stanford University, Stanford, USA, 2018.
. Visiting Professor, Federal University of Fluminense, Rio de Janeiro, Brazil, 2018.
. Visiting Professor, University of Southern California, Los Angeles, USA, 2017.
. Visiting Professor, Stanford University, Stanford, USA, 2017.
. Visiting Professor, University of Southern California, Los Angeles, USA, 2016.
. Visiting Professor, Stanford University, Stanford, USA, 2016.
. Visiting Professor, Naval Research Laboratory (NRL), Washington DC, USA, 2016.
. Visiting Professor, Arizona State University, Tempe-Phoenix, Arizona, USA, 2015.
. Visiting Professor, Stanford University, Stanford, USA, 2015.
. Visiting Professor, University of Southern California, Los Angeles, USA, 2015.
. Visiting Professor, Perm State University, Perm, Russia, 2012.
. Visiting Professor, PUC University, Rio de Janeiro, Brazil, 2004, 2006, 2008, 2010, 2012.
. Visiting Professor, Ecole Nationale Polytechnique of Algeria, 2004

. Visiting Professor, University of Innsbruch, Austria, 2002, 2003, 2004, 2005, 2007.
. Visiting Professor, Rice University, 2004.
. Visiting Professor, The Johns Hopkins University, 2002, 2003.
. Visiting Scientist, Rice University, 2001.
. Visiting Scientist, The Johns Hopkins University, 2000.
. Visiting Scientist, University of Saint Jacques de Compostelle, Spain, 1996, 1997, 1998.
. Visiting Scientist, PUC University, Rio de Janeiro, Brazil, 1994, 1995, 1996.

## 10. SUPERVISED DOCTORAL STUDENTS

1977 - 1979 Thèse C. TREZOS. (Participation à 20% de l'encadrement, Directeur de thèse P. Krée). Bourse CTICM. Thèse de docteur ingénieur, Approche probabiliste de la sécurité des constructions , université Pierre et Marie Curie, Paris VI, soutenue le 21 septembre 1979.

1978 - 1980 Thèse N. AKA. (Participation à 20% de l'encadrement, Directeur de thèse P. Krée). Bourse CTICM. Thèse de docteur 3ème Cycle, Calcul d'indices probabilistes de sécurité pour les structures, université Pierre et Marie Curie, Paris VI, soutenue le 1 juillet 1980.

1979 - 1981 Thèse V. HACHEMI. (Participation à 20% de l'encadrement, Directeur de thèse P. Krée). Bourse CTICM. Thèse de docteur ingénieur, Etude du comportement dynamique non linéaire des risers pour les grandes profondeurs soumis au courant et à la houle, Ecole Nationale des Ponts et Chaussées, Paris, soutenue le 25 juin 1981.

1981 - 1983 Thèse F. POIRION. (Participation à 20% de l'encadrement, Directeur de thèse P. Krée). Bourse Onera. Thèse de docteur 3ème Cycle, Etude numérique de la mécanique aléatoire des systèmes à nombre variable de liaisons, université Pierre et Marie Curie, Paris VI, soutenue le 19 décembre 1983.

1989 - 1991 Thèse de O. FILLATRE. Bourse Onera. Thèse de doctorat de l'Ecole Centrale Paris sur l' Identification des systèmes dynamiques faiblement non linéaires à partir d'excitations aléatoires, soutenue le 26 juin 1991.

1993 - 1995 Thèse de P. SOUDAIS. Bourse Onera. Thèse de doctorat de l'Ecole Centrale Paris sur la Résolution des équations de Maxwell harmonique par une méthode numérique hybride, soutenue le 15 décembre 1995.

1992 - 1995 PhD de D. A. RUSSEL (Encadrement d'une partie de son travail de PhD en 1993). PhD de Pennsylvania State University, in Acoustics, on The theory of fuzzy structures and its application to waves in plates and shells, soutenue le 15 aôut 1995.

1993 - 1995 Thèse de O. LEFUR. Bourse Onera. Thèse de doctorat de l'université Pierre et Marie Curie, Paris VI, sur l'Identification modale des systèmes dynamiques multidimensionnels faiblement non linéaires par une méthode de linéarisation stochastique à paramètres aléatoires, soutenue le 7 novembre 1995.

1996 - 1998 Thèse de J.C. MICHELUCCI. Bourse Onera. Thèse de doctorat de l'Ecole Centrale Paris sur l' Optimisation de forme structurale axisymetrique en vibroacoustique interne dans les domaines des basses et moyennes fréquences, soutenue le 22 octobre 1998.

1996 - 1999 Thèse de K. BJAOUI. Bourse Onera. Thèse de doctorat du CNAM Paris sur une Estimation des paramètres d'une structure floue pour des jonctions continues, soutenue le 2 avril 1999.

1997 - 2001 Thèse de C. DESCELIERS. Bourse Onera. Thèse de doctorat de l'Ecole Centrale Paris sur la Dynamique non linéaire en déplacements finis des structures tridimensionnelles viscoélastiques en rotation, soutenue le 26 janvier 2001.

1998 - 2001 Thèse de S. MZIOU. Bourse Onera. Thèse de doctorat du CNAM Paris sur la Sous-structuration dynamique dans le domaine des moyennes fréquences en analyse des structures, soutenue le 28 novembre 2001.

1999 - 2002 Thèse de H. CHEBLI. Bourse Onera. Thèse de doctorat du CNAM Paris sur la Modélisation des incertitudes aléatoires non homogènes en dynamique des structures pour le domaine des basses fréquences, soutenue le 22 Novembre 2002.

1999 - 2002 Thèse de B. FAVERJON. Bourse Onera. Thèse de doctorat du CNAM Paris, directeur de thèse C. Soize (95%), co-directeur R. Ohayon (5%), sur la Modélisation et validation expérimentale d'un modèle d'impédance acoustique dans le domaine des moyennes et des hautes fréquences pour un système multicouche composé d'un matériau poreux épais inséré entre deux plaques minces, soutenue le 13 Décembre 2002.

2000 - 2003 Thèse de J. DUCHEREAU. Bourse Onera. Thèse de doctorat du CNAM Paris sur la Modélisation non paramétrique des incertitudes en dynamique transitoire des systèmes complexes avec incertitudes non homogènes, soutenue le 21 Janvier 2004.

2001 - 2004 Thèse de E. CAPIEZ. Allocation Recherche. Thèse de doctorat de l'université de Marne la Vallée, Dynamique des structures tournantes à symétrie cyclique en présence d'incertitudes aléatoires. Application au désaccordage des roues

aubagées, defended on 14 October 2004. Thesis prize 2005 awarded by CSMA (Computational Structural Mechanics Association).

2002 - 2005 Thèse de S. SAKJI. Bourse CSTB. Thèse de doctorat de l'université de Marne la Vallée, sur la Modélisation probabiliste et validation expérimentale du transfert thermique et du comportement thermomécanique avec endommagement d'une plaque multicouche carton-plâtre-carton soumise au feu, soutenue le 10 juillet 2006.

2002 - 2006 Thèse de C. CHEN. Allocation Recherche. Thèse de doctorat de l'université de Marne la Vallée, directeur de thèse C. Soize (80%), co-directeur D. Duhamel (20%), Vibration et vibroacoustique des panneaux composites sandwich en présence d'incertitudes - Expérimentation et validation du modèle, soutenue le 21 décembre 2006.

2004 - 2006 Thèse de R. COTTEREAU. Bourse Ecole Centrale Paris. Thèse de doctorat de l'Ecole Centrale Paris, directeur de thèse D. Clouteau (90%), co-directeur C. Soize (10%), Etude stochastique de l'interaction dynamique sol-structure, defended on 18 January 2007. Thesis prize 2008 awarded by CSMA (Computational Structural Mechanics Association).

2002 - 2006 Thèse de J.-F. DURAND. Thèse CIFRE PSA. Thèse de doctorat de l'université de Marne la Vallée,Modélisation de véhicules automobiles en vibroacoustique numérique avec incertitudes et validation expérimentale, soutenue le 10 mai 2007.

2005 - 2008 Thèse de Charles FERNANDEZ. Thèse CIFRE PSA. Thèse de doctorat de l'Université Paris-Est sur la Modélisation et validation expérimentale des complexes insonorisants pour la prévision vibroacoustique numérique basse et moyenne fréquences des automobiles, soutenue le 11 décembre 2008.

2005 - 2008 Thèse de Anas BATOU. Thèse CIFRE EDF R&D. Thèse de doctorat de l'Université Paris-Est sur l'identification de forces stochastiques appliquées à un système dynamique non linéaire en utilisant un modèle numérique incertain et des réponses expérimentales, soutenue le 18 décembre 2008.

2006 - 2008 Thèse de Johann GUILLEMINOT. Bourse Ecole des Mines de Douai. Thèse de doctorat de l'Université des Sciences et Technologies de Lille 1 sur la Modélisation stochastique mésoscopique de milieux aléatoires : application à un polymère renforcé de fibres longues, Directeurs de thèse D. Kondo (Université des Sciences et Technologies de Lille 1) et C. Binétruy (Mines Douai), co-encadrement C. Soize (20%), soutenue le 9 décembre 2008.

2006 - 2009 Thèse de Moustapha MBAYE. Thèse CIFRE Turbomeca. Directeur de thèse Soize C. (80%), co-encadrement Capiez-Lernout E. (20%). Thèse de doctorat de l'Université Paris-Est sur la Conception robuste en vibration et aéroélasticité des roues aubagées de turbomachines, soutenue le 3 novembre 2009.

2006 - 2009 Thèse de Mourad KASSEM. Thèse CIFRE PSA. Thèse de doctorat de l'Université Paris-Est sur le Champ de densité d'énergie pour la vibroacoustique basse et moyenne fréquence des structures complexes utilisant un modèle numérique stochastique. Application à la partition structurale des automobiles, soutenue le 10 décembre 2009.

2007 - 2009 Thèse de Thomas LEISSING. Thèse CIFRE CSTB. Directeur de thèse C. Soize (50%), co-directeur au CSTB, P. Jean (50%) Thèse de doctorat de l'Université Paris-Est sur la Propagation d'ondes non linéaires en milieu complexe. Application à la propagation en environnement urbain, soutenue le 30 novembre 2009.

2007 - 2010 Thèse de Thiago RITTO. Bourse Brésilienne CAPES. Thèse de doctorat en co-tutelle entre l'université de la PUC-Rio au Brésil et l'Université Paris-Est sur Numerical analysis of the nonlinear dynamics of a drill-string with uncertainty modeling, directeur de thèse coté Brésil R. Sampaio (50%), directeur de thèse coté Français C. Soize (50%), defended on 15 April 2010. Thesis prize 2011 awarded by CSMA (Computational Structural Mechanics Association).

2007 - 2011 Thèse de Thanh Trung DO. Thèse bourse CSTB. Thèse de doctorat de l'Université Paris-Est sur l'Analyse expérimentale et modélisation du comportement non linéaire thermomécanique de cloison en plaques carton-plâtre-carton, vissées et soumises à des charges thermiques et mécaniques, soutenue le 8 décembre 2011.

2009 - 2012 Thèse de Adrien ARNOUX. Thèse CIFRE PSA. Directeur de thèse C. Soize (50%), co-encadrement A. Batou (50%). Thèse de doctorat de l'Université Paris-Est sur la Réduction des modèles numériques en dynamique linéaire basse fréquence des automobiles, soutenue le 3 octobre 2012.

2010 - 2013 Thèse de Guillaume PERRIN. Bourse SNCF. Directeur de thèse A. Duhamel (50%), co-directeur C. Soize (50%) Thèse de doctorat de l'Université Paris-Est : "Random fields and associated statistical inverse problems for uncertainty quantification. Application to railway track geometries for high-speed trains dynamical responses and risk assessment", defended on 24 september 2013. Thesis prize 2014 awarded by Ecole des Ponts ParisTech and Thesis prize 2014 awarded by Université Paris-Est (École Doctorale Sciences, Ingénierie, Environnement).

2010 - 2013 Thèse de Manh-Tu NGUYEN. Contrat Doctoral. Directeur de thèse C. Soize (50%), co-encadrement C. Desceliers (50%) Thèse de doctorat de l'Université Paris-Est : "Identification multi-échelle du champ d'élasticité apparent stochastique de microstructures hétérogènes. Application à un tissu biologique", defended on 6 October 2013.

2012 - 2015 Thèse de Americo CUNHA JUNIOR. Bourse Brésilienne CAPES. Thèse de doctorat en co-tutelle entre l'université de la PUC-Rio au Brésil et l'Université Paris-Est : "Modeling and uncertainty quantification in the nonlinear stochastic dynamics of horizontal drillstrings", directeur de thèse Brésil R. Sampaio (50%), directeur de thèse France C. Soize (50%), defended on 11 March 2015.

2012 - 2015 Thèse de Roberta DE QUEIROZ LIMA. Bourse Brésilienne CAPES. Thèse de doctorat en co-tutelle entre l'université de la PUC-Rio au Brésil et l'Université Paris-Est : "Modeling and simulation in nonlinear stochastic dynamics of coupled systems and impacts", directeur de thèse Brésil R. Sampaio (50%), directeur de thèse France C. Soize (50%), defended on 13 May 2015. Thesis prize 2015 awarded by ABCM-EMBRAER (Associação Brasileira de Engenharia e Ciências Mecânicas (ABCM) e pela Empresa Brasileira de Aeronáutica (Embraer)) et Thesis prize 2016 awarded by CAPES (Coordenadoria de Aperfeiçoamento de Pessoal de Nível Superiorla).

2012 - 2015 Thèse de Nicolas LESTOILLE. Thèse CIFRE SNCF. Thèse de doctorat de l'Université Paris-Est : "Stochastic model of high-speed train dynamics for the prediction of long-time evolution of the track irregularities", defended on 16 October 2015.

2012 - 2015 Thèse de Thinh Tien LE. Thèse projet ANR. Directeur de thèse C. Soize (30%), co-encadrement J. Guilleminot (70%). Thèse de doctorat de l'Université Paris-Est : "Modélisation stochastique en mécanique des milieux continus de l'interphase inclusion-matrice à partir de simulations en dynamique moléculaire", defended on 21 October 2015.

2013 - 2016 Thèse de Olivier EZVAN. Thèse projet ANR. Directeur de thèse C. Soize (30%), co-encadrement A. Batou (70%). Thèse de doctorat de l'Université Paris-Est : "Multilevel model reduction for uncertainty quantification in computational structural dynamics", defended on 23 September 2016.

2014 - 2020 Thèse de Rémi CAPILLON. Thèse Contrat Doctoral. Directeur de thèse C. Desceliers (90%), co-encadrement C. Soize (10%). Thèse de doctorat de l'Université Paris-Est: "Modélisation non paramétrique des incertitudes dans les modèles numériques de calcul linéaires et causaux", defended on 10 December 2020.

2014 - 2017 Thèse de Wafaa KASSIR. Bourse CSTB. Thèse de doctorat de l'Université Paris-Est : "A non-Gaussian probabilistic approach for the equivalent static loads of wind effects in structural dynamics from wind tunnel measurements", defended on 7 September 2017.

2014 - 2017 Thèse de Déborah LAVAZEC. Contrat Doctoral, Labex MMCD. Directeur de thèse A. Duhamel (50%), co-Directeur C. Soize (30%), co-encadrement A. Batou (20%). Thèse de doctorat de l'Université Paris-Est : "Experimental evaluation and modeling of a nonlinear absorber for vibration attenuation. Design, identification, and analysis", defended on 21 December 2017.

2015 - 2018 Thèse de David LEBEL. Thèse CIFRE SNCF. Thèse de doctorat de l'Université Paris-Est : "Statistical inverse problem in nonlinear high-speed train dynamics", defended on 30 November 2018.

2016 - 2019 Thèse de Quentin AKKAOUI. Thèse DGA. Directeur de thèse C. Soize (10%), co-encadrement R. Ohayon du CNAM Paris (10%), E. Capiez-Lernout (80%). Thèse de doctorat de l'Université Paris-Est : "Computational dynamics of geometrically nonlinear structures coupled with acoustic fluids in presence of sloshing and capillarity. Uncertainty quantification", defended on 4 October 2019.

2016 - 2019 Thèse de Mariia NESTEROVA. Thèse financée par le projet européen Marie Curie Infrastar, Directeur de thèse C. Soize (10%), co-encadrement Franziska Schmidt de l'IFSTTAR (90%). Thèse de doctorat de l'Université Paris-Est : "Reliability of structures exposed to traffic and environmental loads", defended on 25 October 2019.

2016 - 2019 Thèse de Anthony PICOU. Thèse CIFRE Safran, Directeur de thèse C. Soize (10%), co-encadrement E. Capiez-Lernout (90%). Thèse de doctorat de l'Université Paris-Est : "Robust analysis under uncertainties of bladed disk vibration with geometrical nonlinearities and detuning", defended on 16 December 2019.

2017 - 2020 Thèse de Vincent DANGLA. Thèse CIFRE Airbus. Thèse de doctorat de l'Université Gustave Eiffel :"Robust design of nacelle noise reduction technologies", defended on 11 September 2020.

2017 - 2020 Thèse de Justin REYES. Thèse CIFRE PSA, Directeur de thèse C. Soize (50%), co-encadrement C. Desceliers (50%). Thèse de doctorat de l'Université Paris-Est : "Multi-scale stochastic reduced-order model in computational vibroacoustics applied to automobiles", defended on 5 November 2020. The paper "Vehicle model likelihood computation using a probabilistic complex FRF matrix statistical reduction" that has been presented during the ISMA/USD conference has been awarded as the USD Best Student Paper.

2019 - 2022 Thèse de Julien NESPOULOUS. Thèse CIFRE SNCF. Thèse de doctorat de l'Université Gustave Eiffel : "Constrained optimization under uncertainty of the driver's command for energy saving of high-speed trains using computational stochastic nonlinear dynamics and statistics", defended on 23 Novembre 2022. Thesis prize 2023 awarded by Paris-Est Sup.

2021 - 2024 Thèse de Amritesh SINHA. Thèse Airbus - DGAC. Directeur de thèse C. Desceliers (70%), co-encadrement C. Soize (30%). Thèse de doctorat de l'Université Gustave Eiffel : "Probabilistic learning and neural networks for statistical metamodel of liner acoustic impedance", defended on 31 May 2024.

2022 - 2025 Thèse de Romain Jorge Do MARCO. Thèse CIFRE SNCF, Directeur de thèse G. Perrin (90%), co-encadrement C. Soize (10%). Thèse de doctorat de l'Université Gustave Eiffel : "Real-time optimization of train speed controls to limit energy consumption, using information provided by on-board sensors", defended on 26 November 2025.

## 11. PROFESSIONAL ACTIVITIES

### 11.1. University Services

. Director of the Engineering Mechanics Laboratory, 2002 - 2004.
. Vice-President for the Research of the PRES Université Paris-Est, 2008 - March 2009.
. Vice-President for the Research of the Université Paris-Est Marne-la-Vallée, 2002 - January 2012.
. Director of the laboratory "Modélisation et Simulation Multi-Echelle (MSME UMR 8208 CNRS)", 2008 - February 2013.

### 11.2. Reviewer of Thesis and HDR (Habilitation Thesis)

P. Fayol, Thesis, Paris VI University (Pierre et Marie Curie), December 18, 1989.
N. Pican, Thesis, Paris XI University, September 28, 1989.
P. Bernard, Thesis, Blaise Pascal University, Clermont-Ferrand, October 20, 1990.
A. Sbai, Thesis, Ecole Nation. Sup. de l'Aéronau. et de l'Espace, December 17, 1990.
H-P. Boissière, Thesis, Ecole Centrale Paris, September 7, 1992.
E. Friot, Thesis, University of Aix-Marseille II, May 5, 1993.
A. Lebot, Thesis, Ecole Centrale Lyon, April 20, 1994.
D. Trentin, Thesis, INSA Lyon, December 21, 1995.
A. Gallet, Thesis, University of Provence (Aix-Marseille I), January 12, 1996.
S. Bellizzi, HDR (Habilitation Thesis), University of Méditerranée, Aix-Marseille II, November 3, 1997.
O. Richoux, Thesis, University of Maine, December 7, 1999.
O. Dessombz, Thesis, Ecole Centrale Lyon, December 19, 2000.
D. Clouteau, HDR (Habilitation Thesis), INP Grenoble, Ecole Centrale Paris, October 19, 2001.
J.-M. Mencik, Thesis, Sherbrooke University (Cadana) and INSA Lyon, December 12, 2002.
P. Darcis, Thesis, Blaise Pascal University - Clermont II, December 9, 2002.
A. Le Bot, HDR (Habilitation Thesis), Ecole Centrale Lyon, December 16, 2002.
P. Neple, Thesis, University of Bourgogne, December 5, 2003.
F. Sui, Thesis, Ecole Centrale Lyon, January 27, 2004.
M. N. Ichchou, HDR (Habilitation Thesis), Ecole Centrale Lyon, December 6, 2004.
J. Delbove, Thesis, Ecole Supérieure de l'Aéronautique et de l'Espace, June 7, 2005.
O. Le Maître, HDR (Habilitation Thesis), University of Evry, March 23, 2006.
S. Besset, Thesis, Ecole Centale Lyon, November 24, 2006.
B. Sudret, HDR (Habilitation Thesis), Blaise Pascal University, October 12, 2007.
X. Zhong, Thesis, Ecole Centale de Lyon, October 14, 2010.
P. du Cauzé de Nazelle, Thesis, Ecole Centrale de Lyon, March 27, 2013.
P. Froment, Thesis, Ecole Centrale de Lyon, April 24, 2014.
L. Alimonti, Thesis, Université de Sherbrooke, Canada, December 18, 2014.
F. Schmidt, HDR (Habilitation Thesis), Université Paris-Est, December 19, 2017.
G. Brogna, Thesis, INSA Lyon, December 18, 2018.
K. Bulthuis, Thesis, Université Libre de Bruxelles, January 13, 2020, and Université de Liège, January 29, 2020.

### 11.3. Reviewers of International Journals

317 reviews performed between 1990 and 2026:

Academic Press, books (2) Springer, book and chapters of book (5)
Aerospace Science and Technology (4)
AIAA Journal (15)
AIMS Mathematics (1)
ASCE Journal of Aerospace Engineering (1)
CACAIE Journal (10)
Computational Fluid Dynamics (1)
Computational Material Sciences (1)
Computational Mechanics (6)
Computational Methods in Applied Mechanics and Engineering (35)
Computers and Structures (37)
CRAS, Paris (5)
Engineering Structures (1)
European Journal of Mechanics (5)
IEEE Transactions on Signal Processing (1)
International Journal for Numerical Methods in Engineering (18)
International Journal for Numerical Methods in Fluids (1)
International Journal for Uncertainty Quantification (5)
International Journal of Engineering Science (1)
International Journal of Earthquake Engineering Structural Dynamics (1)
International Journal of Fracture (1)
International Journal of Non-Linear Mechanics (27)
International Journal of Solids and Structures (1)
ISRN Applied Mathematics (1)
Integrated Computer-Aided Engineering, an International Journal (1)
Journal Acoustical Society of America (26)
Journal of Aerospace Engineering ASCE (1)
Journal of Aircraft (1)
Journal of Applied Mechanics - Transactions of the ASME (3)
Journal of Computational Physics (5)
Journal of Engineering Mechanics ASCE (2)
Journal of Fluids and Structures (1)
Journal of Intelligent Material Systems and Structures (2)
Journal of Offshore Mechanics and Arctic Engineering (1)
Journal of Nonlinear Dynamics (1)
Journal of Sound and Vibration (35)
Journal of Vibration and Acoustics (4)
La Recherche Aérospatiale (4)
Mechanical Systems and Signal Processing (3)
Physica-D (2)
Probabilistic Engineering Mechanics (30)
Probability Surveys (1)
Proceedings of the Royal Society A (1)
SIAM Journal on Scientific Computing (6)
SIAM-ASA Journal on Uncertainty Quantification (JUQ) (3)
Structural Engineering and Mechanics (1)
Theory of Probability and Mathematical Statistics (1)

**11.4. Membership of Committees, Scientific Committees of Laboratories and Institutions**.

. Member of the Advisory Committee of the International Association for Structural Safety and Reliability (IASSAR), 2025 - 2029.
. Member of the Senior Advisory Board of the European Association for Structural Dynamics (EASD), 2015 - present.
. Officer of the "Uncertainty Quantification" Speciality Committee of United States Association of Computational Mechanics (USACM), 2013 - present.
. Member of the Scientific Committee of the FCBA Institute of Technology, 2012 - 2018.
. Member of the Scientific Committee of the Laboratory Tribology and Systems Dynamics(LTDS), 2013 - 2016.
. Elected member of the Board of the PRES Université Paris-Est, 2012 - 2015.
. Elected member of the Board of the Université Paris-Est Marne-la-Vallée, 2012 - 2015.
. Member of the Executive Board of the European Association for Structural Dynamics (EASD), 2011 - 2014.
. Chairman of the Executive Board of the European Association for Structural Dynamics (EASD), 2008 - 2011.
. Member of the Executive Board of the European Association for Structural Dynamics (EASD), 2006 - 2008.
. Member of the Board of the PRES Université Paris-Est, 2007 - 2011.
. Permanent invited member of the Board of the Université Paris-Est Marne-la-Vallée, 2002 - 2011.
. Permanent invited member of the Scientific Committee of the Université Paris-Est Marne-la-Vallée, 2002 - 2011.
. Member of the Scientific Committee of CSTB (French Research Center in Civil Engineering), 2002 - 2006.
. Chairman, European Association for Structural Dynamics (EADS), 2002 - 2005.
. Chairman, *Structure Committee* of the Association Aéronautique et Astronautique de France, 2002 - 2003.
. Expert member in the Orbital System Committee of CNES (French Space Agency), 1992 - 1999.
. Member of the Scientific Committee of the Acoustic and Mechanics Laboratory (CNRS), 1992 - 1999.
. Member of the Scientific Committee of the "Bassin des Carènes" of the French Navy, 1994 - 1998.
. Chairman, Spatial Mechanisms Experts Committee of CNES (French Space Agency), 1994.

**11.5. Membership of Scientific Committees or Organizing Committees of International Conferences**.

. AICOMAS 2027, ECCOMAS Conference on Artificial Intelligence and Computational Methods in Applied Science, Athens, Greece, 9-12 November 2027.
. UNCECOMP 2027, Uncertainty Quantification in Computational Sciences and Engineering, Crete, Greece, 13-16 June 2027.
. COMPDYN, 11th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Crete, Greece, 13-16 June 2027.
. ISMA 2026 - USD 2026, International Conference on Noise and Vibration Engineering Conference (ISMA) and on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 7-9, 2026
. CSM9 2026, 9th Computational Stochastic Mechanics Conference, Corfu, Greece, June 21-25, 2026.
. EURODYN 2026, 13th International Conference on Structural Dynamics, Hannover, Germany, 27 September - 1 October, 2026.
. ICVE 2025, 9th International Conference on Vibration Engineering, Nanjing, China, October 24-26, 2025.
. CM3P 2025, 5th ECCOMAS Thematic Conference on Computational Methods for Multi-scale, Multi-uncertainty, and Multi-physics Problems, Porto, Portugal, 2-4 July 2025.
. COMPDYN, 10th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Rhodes Island, Greece, 15-18 June 2025.
. UNCECOMP 2025, Uncertainty Quantification in Computational Sciences and Engineering, Rhodes Island, Greece, 15-18 June 2025.
. ICOSSAR 2025, 14th International Conference on Structural Safety and Reliability, University of Southern California, Los Angeles, United States, June 1-6, 2025.
. ISMA 2024 - USD 2024, International Conference on Noise and Vibration Engineering Conference (ISMA) and on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 9-11, 2024
. CSMA 2024, 16th National Conference on Structural Calculation, Giens (Var), France, 13-17 May 2024.
. ASCE-ICVRAM-ISUMA 2024, organized by ASCE and Tongji University, Shanghai, China, 25-28 April 2024.
. UNCECOMP 2023, Uncertainty Quantification in Computational Sciences and Engineering, Athens, Greece, 12-14 June 2023.
. COMPDYN 2023, Computational Methods in Structural Dynamics and Earthquake Engineering, Athens, Greece, 12-14 June 2023.
. ICAV 2022, The Fourth International Conference on Acoustics and Vibration, Sousse, Tunisia,

December 19-21, 2022
. ICOSSAR 2021-2022, 13th International Conference on Structural Safety & Reliability, Virtual Conference, Shanghai, China, 13-17 September 2022.
. ISMA 2022 - USD 2022, International Conference on Noise and Vibration Engineering Conference (ISMA) and on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 12-14, 2022
. UNCECOMP 2021, Uncertainty Quantification in Computational Sciences and Engineering, Virtual conference, 28-30 June 2021.
. COMPDYN 2021, Computational Methods in Structural Dynamics and Earthquake Engineering, Virtual conference, 28-30 June 2021.
. REC 2020, 9th International Workshop on Reliable Engineering Computing, Taormina, Italy, 17-20 May, 2020.
. EURODYN 2020, 11th International Conference on Structural Dynamics, Streamed from Athens, Greece, 23-26 November, 2020.
. EMI 2020 and PMC 2020, Engineering Mechanics Institute conference and the 13th ASCE Specialty Conference on Probabilistic Mechanics New York, May 26-29, 2020.
. ISMA 2020, International Conference on Noise and Vibration Engineering Conference (ISMA) and on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 7-9, 2020
. CMSM 2019, 8th edition of the International Congress on Design and Modelling of Mechanical Systems, Hammamet, Tunisia, March 18-20, 2020.
. UNCECOMP 2019, Uncertainty Quantification in Computational Sciences and Engineering, Crete, Greece, 22-24 June 2019.
. COMPDYN 2019, Computational Methods in Structural Dynamics and Earthquake Engineering, Crete, Greece, 22-24 June 2019.
. CSMA 2019, 4ème Colloque National en Calcul des Structures, Giens (Var), 13-17 Mai 2019.
. REC 2018, 8th International Workshop on Reliable Engineering Computing, Computing with Confidence, Institute for Risk, Liverpool, July 16 - 18, 2018
. ISMA 2018, International Conference on Noise and Vibration Engineering Conference (ISMA) and on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 17-19, 2018
. ICAV 2018, International Conference on Acoustics and Vibration, Tunisia, March 19-21, 2018
. COMUS 2017, Modeling of Multi-Uncertainty and Multi-Scale Problems, Porto, Portugal, September 12-14, 2017
. EURODYN 2017, 10th International Conference on Structural Dynamics, Roma, Italy, September 10-13, 2017
. ICOSSAR 2017, 12th International Conference on Structural Safety & Reliability, Vienna, Austria, 6-10 August 2017.
. COMPDYN 2017, Computational Methods in Structural Dynamics and Earthquake Engineering, Rhodes Island, Greece, 15-17 June, 2017.
. UNCECOMP 2017, Uncertainty Quantification in Computational Sciences and Engineering, Rhodes Island, Greece, 15-17 June, 2017.
. CMSM 2017, 7th edition of the International Congress on Design and Modelling of Mechanical Systems, Hammamet, Tunisia, March 27-29, 2017.
. ICAV 2016, International conference on Acoustics and Vibration (ICAV), Hammamet, Tunisia, March 21-23, 2016.
. EUROMECH 2016, International Conference on Multi-Uncertainty and Multi-Scale Methods and Related Euromech Colloquium 584, Porto, Portugal, September 13-17, 2016.
. ISMA 2016 - USD 2016, Noise and Vibration Engineering Conference (ISMA), International Conference on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 19-21, 2016.
. REC 2016, 7th International Workshop on Reliable Engineering Computing, Bochum, Germany June 15 – 17, 2016.
. COMPDYN 2015, Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Crete, Greece, 23-25 May, 2015.
. CMSM 2015, The Sixth International Congress on Design and Modelling of Mechanical Systems, Hammamet, Tunisia, March 23 - 25, 2015.
. DYNCOMP 2015, International Conference on Composites Materials and Structures Dynamic Behaviour, Arles in Provence, France, June 2-4, 2015.
. MSF 2015, ECCOMAS Thematic Conference on Multi-scale Computational Methods for Solids and Fluids, Sarajevo, Bosnia and Herzegovina, July 20-23, 2015.
. UNCECOMP 2015, Uncertainty Quantification in Computational Sciences and Engineering, Island of Crete, Greece, May 25-27, 2015.

. ISMA 2014 - USD 2014, Noise and Vibration Engineering Conference (ISMA), International Conference on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 15-17, 2014.
. IUTAM Symposium 2014, Dynamical Analysis of Multibody Systems with Design Uncertainties, Stuttgart, Germany, June 23-27, 2014.
. EURODYN 2014, 9th International Conference on Structural Dynamics, Porto, Portugal, 30 June - 2 July 2014.
. REC 2014, 6th International Workshop on Reliable Engineering Computing - REC 2014 - Reliability and Computations of Infrastructures, Illinois Institute of Technology, Chicago, May 25-28, 2014.
. ICOSSAR 2013, 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013) (Member of the International Advisory Committee), Columbia University, New York City, June 16-20, 2013.
. COMPDYN 2013, Computational Methods in Structural Dynamics and Earthquake Engineering, in conjunction with SEECCM III, Island of Kos, Greece, June 12-14, 2013.
. 11ème Colloque National en Calcul des Structures, Giens (Var), May 13 - 17, 2013.
. CMSM 2013, 5th edition of the International Congress on Design and Modelling of Mechanical Systems, Djerba, Tunisia, March 18 - 20, 2013.
. DYNCOMP 2012, First International Conference on Composites Materials and Structures Dynamic Behaviour, Arcachon, France, May 22 - 24, 2012.
. ISMA 2012 - USD 2012, Noise and Vibration Engineering Conference (ISMA), International Conference on Uncertainty in Structural Dynamics (USD), Leuven, Belgium, September 17-19, 2012.
. SIAM UQ 2012, SIAM Conference on on Uncertainty Quantification, Raleigh, North Carolina, USA, April 2-4, 2012.
. EURODYN 2011, 8th International Conference on Structural Dynamics, Leuven, Belgium, July 4- 6, 2011.
. COMPDYN 2011, Computational Methods in Structural Dynamics and Earthquake Engineering, Corfu, Greece, May 26 -28, 2011.
. 10ème Colloque National en Calcul des Structures, Giens (Var), May 9 - 13, 2011.
. ISRERM 2010, International Symposium on Reliability Engineering and Risk Management, Tongji University, Shanghai, P.R.China, September 23-26, 2010.
. ISMA 2010, 30th Noise and Vibration Engineering Conference, Leuven, Belgique, September 20 - 22, 2010.
. USD 2010, International Conference on Uncertainty in Structural Dynamics, Leuven, September 20–22, 2010.
. IMPACT 2010, First International Symposium on "Dynamic of Systems, materials and structures", Djerba, Tunisie, March 22 - 24, 2010.
. REC 2010, 4th International Workshop on Reliable Engineering Computing Robust Design - Coping with Hazards, Risk and Uncertainty, National University of Singapore, March 3–5, 2010.
. ICOSSAR 2009, 10th International Conference on Structural Safety and Reliability, Osaka, Japan, September 13 - 17, 2009.
. IUTAM Symposium on Vibration Analysis of Structures with Uncertainties, Saint Petersburg, July 6–10, 2009.
. COMPDYN 2009, Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Rhodes, Greece, June 22 - 24, 2009.
. USD 2009, 2nd International Conference on Uncertainty in Structural Dynamics, the University of Sheffield, UK, June 15–17, 2009.
. 9ème Colloque National en Calcul des Structures, Giens (Var), May 25 - 29, 2009.
. ISMA 2008, 29th Noise and Vibration Engineering Conference, Leuven, Belgique, September 15 - 17, 2008.
. EURODYN 2008, 7th European Conference on Structural Dynamics, Soutampton, England, July 7 - 11, 2008.
. LSAME08-NDM08, Leuven Symposium on Applied Mechanics in Engineering - Non-deterministic numerical modeling, Leuven, March 31 - April 2, 2008.
. COMPDYN 2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymnon, Crete, Greece, June 13 - 15, 2007.
. USD 2007, Intern. Conference on Uncertainty in Structural Dynamics, the University of Sheffield, UK, June 11 - 13, 2007.
. ISMA 2006, 28th Noise and Vibration Engineering Conference, Leuven, Belgium, September 18 - 20, 2006.
. CSM 2006, 5th Computational Stochastic Mechanics Conference Rodos, Greece, June 21 - 23, 2006.
. EURODYN 2005, 6th European Conference on Structural Dynamics, Paris, September 4 - 7, 2005.
. ICOSSAR 2005, 9th Intern. Conf. on Structural Safety and Reliability , Rome, June 19 - 22, 2005.
. ISMA 2004, 27th Noise and Vibration Engineering Conference, Leuven, Belgium, September 20 - 22, 2004.
. 2ème Colloque d'Analyse Vibratoire Expérimentale, Blois, November 13 - 14, 2003.

. 1st Intern. Conf. on Risk, Vulnerability and Reliability in Construction, Alger, October 11 - 12, 2003.
. SSD 2003, 5th Intern. Conf. on Stochastic Structural Dynamics, Hangzhou, China, May 26 - 28, 2003.
. 6ème Colloque National en Calcul des Structures, Giens (Var), May 20 - 23, 2003.
. CSM 2002, 5th Intern. Conf. on Computational Stochastic Mechanics, Kerkyra, Greece, June 9 - 12, 2002.
. ISMA 2002, 26th Noise and Vibration Engineering Conference, Leuven, Belgium, September 12 - 14, 2002.
. EURODYN 2002, 5th European Conference on Structural Dynamics, Munich, September 2-5, 2002.
. ICOSSAR 2001, 8th Intern. Conf. on Structural Safety and Reliability, Newport Beach, USA, 17-22 June, 2001.
. ISMA 2000, 25th Noise and Vibration Engineering Conference, Leuven, Belgium, 13-15 September 2000.
. NOVEM 2000, Noise and Vibration Using Energy Methods, Lyon, 31 August - 2 September 2000.
. CSM 1998, 3rd Intern. Conf. on Computational Stochastic Mechanics, Island of Santorini, Greece, June 14-17, 1998.
. ICOSSAR 1997, 7th Intern. Conf. on Structural Safety and Reliability, Kyoto, Japan, November 24–28, 1997;
. EURONOISE 1995, 2nd Intern. Conf. on Noise Control, Lyon, France, March 21–23, 1995;
. ICASP 1995, 7th Intern. Conf. on Applications of Statistics and Probability, Paris, France, July 10-13, 1995;
. ICOSSAR 1993, 6th Intern. Conf. on Structural Safety and Reliability, Innsbruck, Austria, August 9–13, 1993.

### 11.6. Organization of International Conferences, Minisymposia and Workshop.

. Conference Chairman of the 6th European Conference on Structural Dynamics, EURODYN 2005, Paris, September 4-7, 2005.
. Co-organizers: R. Ghanem, C. Soize, G.I. Schueller, Minisymposium "Uncertainty modeling and quantification in computational mechanics" du 7th World Congress on Computational Mechanics (WCCM7), Los Angeles, USA, July 16 - 22, 2006.
. Co-organizers: R. Ghanem, C. Soize, G.I. Schueller, Minisymposium "Uncertainty modeling and quantification in computational mechanics" du 9th U.S. National Congress on Computational Mechanics (USNCCM IX), San Francisco, USA, July 22 - 26, 2007.
. Scientific advisor with G.I. Schueller of the Workshop "Uncertainties in structural dynamics" organized by M. Pellissitti, IFM, Leopold-Franzens University of Innsbruck, October 19, 2007.
. Co-organizers: R. Ghanem, G.I. Schueller, C. Soize, Joint IACM-IUTAM minisymposium "Uncertainty modeling and quantification in computational mechanics" of the joint WCCM8 and ECCOMAS 2008 Conferences, 8th World Congress on Computational Mechanics (WCCM8) and 5th European Congress on Computational Methods in Applied Sciences, Venice, Italy, 30 June - 5 July 2008.
. Co-organizers: C. Soize, G.I. Schueller, Minisymposium "Uncertainty and reliability in computational structural dynamics" in the international conference COMPDYN 2009 : Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Rhodes, Greece, June 22–24, 2009.
. Co-organizers: R. Ghanem, C. Soize, G.I. Schueller, W.K. Liu, Minisymposium "Uncertainty quantification in computational science and engineering" of the 10th U.S. National Congress on Computational Mechanics (USNCCM X), Columbus, Ohio, USA, July 16 - 19, 2009.
. Co-organizers: R. Ghanem, W.K. Liu, G.I. Schueller, C. Soize, Minisymposium "Uncertainty quantification in computational mechanics and engineering sciences" of the 4th European Conference on Computational Mechanics (Solids, Structures and Coupled Problems in Engineering) - ECCM 2010, Paris, France, May 17–21, 2010.
. Co-organizers: R. Ghanem, W.K. Liu, G.I. Schueller, C. Soize, Minisymposium "Uncertainty modeling and quantification in computational science and engineering" of the 9th World Congress on Computational Mechanics (WCCM 2010), Sydney, Australia, July 19 – 23, 2010.
. Co-organizers: R. Ghanem, G.I. Schueller, C. Soize, W.K. Liu, Minisymposium "Uncertainty quantification, robustness and computational stochastic mechanics" of the 6th M.I.T. Conference on Computational Fluid and Solid Mechanics; Advances in Solids and Structures Massachusetts Institute of Technology, USA, June 15–17, 2011.
. Co-organizers: R. Ghanem, C. Soize, G.I. Schueller, W.K. Liu, Minisymposium "Uncertainty Quantification in Computational Science and Engineering" of the 11th U.S. National Congress on Computational Mechanics (USNCCM XI), Minneapolis, Minnesota, USA, July 25 - 29, 2011.
. Co-organizers: G.I. Schueller, R. Ghanem, C. Soize, W.K. Liu, Minisymposium "Uncertainty Quantification in Computational Mechanics" of the 7th International Conference on Computational Mechanics for Spatial Structures (IASS-IACM 2012), Sarajevo, Bosnia and Herzegovina, April 2 - 4, 2012.
. Co-organizers: R. Ghanem, R. Sampaio, C. Soize, G.I. Schueller, W.K. Liu, Minisymposium "Uncertainty Quantification in Computational Science and Engineering " of the 10th World Congress on Computational

Mechanics (WCCM 2012), São Paulo, Brazil, 8–13 July, 2012.

. Co-organizers: G.I. Schueller, C. Soize, R. Ghanem, W.K. Liu, Minisymposium "Uncertainty Quantification in Computational Mechanics and Engineering Sciences" of the 6th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna, Austria, September 10-14, 2012.

. Co-organizers: C. Soize, R. Ghanem, Minisymposium "Uncertainty quantification in computational dynamics" of the international conference COMPDYN 2013: Computational Methods in Structural Dynamics and Earthquake Engineering, in conjunction with the III South-East European Conference on Computational Mechanics (SEECCM III) Island of Kos, Greece, June 12-14, 2013.

. Co-organizers: R. Ghanem, C. Soize, W.K. Liu, Minisymposium "Probabilistic modeling, analysis and simulation for large scale and complex engineered systems" of the 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), Columbia University, New York City, June 16-20, 2013.

. Co-organizers: R. Ghanem, J. Stewart, C. Soize, Minisymposium "Uncertainty quantification (UQ) challenge benchmarks" of the 12th U.S. National Congress on Computational Mechanics (USNCCM XII), Raleigh, NC, USA, July 22-25, 2013.

. Co-organizers: J. Stewart, R. Ghanem, C. Soize, Minisymposium "Uncertainty quantification (UQ) challenge benchmarks" of the SIAM Conference on Uncertainty Quantification, Savannah, Georgia, USA, March 31, April 3, 2014.

. Co-organizers: C. Soize, R. Ghanem, Minisymposium "Uncertainty quantification in computational structural dynamics and coupled systems" of the 9th International Conference on Structural Dynamics (EURODYN 2014), Porto, Portugal, 30 June - 2 July 2014.

. Co-organizers: C. Soize, M. Arnst, Minisymposium "Uncertainty quantification in coupled problems and structural dynamics", ECCOMAS Thematic Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2015), Crete Island, Greece 25-27 May 2015.

. Co-organizers: J. Guilleminot, M. Arnst, C. Soize, Minisymposium "Stochastic modeling and identification of uncertainties in computational mechanics" of the 7th European Congress on Computational Methods in Applied Sciences and Engineering (ECCM 2016), Crete Island, Greece, June 05-10, 2016.

. Co-organizers: E. Capiez-Lernout, M. Mignolet, C. Soize, Minisymposium "Nonlinear dynamics of rotating structures" of the 7th European Congress on Computational Methods in Applied Sciences and Engineering (ECCM 2016), Crete Island, Greece, June 05-10, 2016.

. Co-organizers: J. Guilleminot, R. Ghanem, C. Soize, Minisymposium "Stochastic modeling, identification and propagation of uncertainties in computational mechanics of materials", 12th World Congress on Computational Mechanics, (WCCM12), Seoul, Korea, 24–29 July, 2016.

. Co-organizers: J. Guilleminot, R. Ghanem, C. Soize, Minisymposium "Uncertainty Quantification in Computational Mechanics", 2016 EMI International Conference of ASCE, Engineering Mechanics Institute Conference, Metz, France, 25-27 October, 2016.

. Co-organizers: C. Soize, R. Ghanem, P.D. Spanos, Jie Li, M. Arnst, Minisymposium "Probabilistic and statistical methodologies for uncertainty quantification in computational sciences and engineering, 12th International Conference on Structural Safety & Reliability, ICOSSAR 2017, Vienna, Austria, 6-10 August, 2017.

. Co-organizers: R.Ghanem, M. Mignolet, C. Soize, Minisymposium "Uncertainty Quantification and reliability analysis in structural dynamics and coupled systems", X International Conference on Structural Dynamics, EURODYN 2017, Rome, Italy, 10-13 September, 2017.

. Co-organizers: M. Arnst, R. Ghanem, C. Soize, Minisymposium "UQ and probabilistic learning computational dynamics", XI International Conference on Structural Dynamics, EURODYN 2020, Athens, Greece, 23-25 November, 2020.

. Co-organizers: C. Desceliers, C. Soize, J. Stewart, A.F. Alvarez, K. Garikipati, M. Bessa, M. Mignolet, F. Pled, R. Ghanem, Minisymposium "Data-driven science with uncertainty quantification, machine learning, and optimization", 14th World Congress on Computational Mechanics, (WCCM14) and ECCOMAS 2020, Virtual Conference, Paris, France, January 11-15, 2021.

. Co-organizers: M. Bessa, A.F. Alvarez, K. Garikipati, R. Ghanem, C. Soize, J. Stewart, Minisymposium "Uncertainty Quantification and Machine Learning for Modeling and Optimization, UNCECOMP 2021, 4th International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Virtual Conference, 28-30 June 2021, Athens, Greece.

. Co-organizers: J. Stewart, K. Garikipati, R. Ghanem, M. Bessa, C. Desceliers, A. Figueroa, M. Mignolet, F. Pled, and C. Soize, Minisymposium "Data-driven Science and Uncertainty quantification, machine learning, and

optimization", 16th U.S National Congress on Computational Mechanics (USNCCM16), Virtual Conference, Chicago, USA, July 25-29, 2021.

. Co-organizers: R. Ghanem, C. Soize, Minisymposium "Probabilistic learning: fundamentals and computational challenges", 13th International Conference on Structural Safety & Reliability, ICOSSAR 2021-2022, Virtual Conference, Shanghai, China, 13-17 September 2022.
. Co-organizers: E. Capiez-Lernout, M. Mignolet, C. Soize , Minisymposium "Nonlinear computational structural dynamics in rotating turbomachinery fundamentals", 15th World Congress on Computational Mechanics, WCCM 2022, Yokohama, Japan, July 31st - August 5, 2022.
. Co-organizers: F. Pled, C. Desceliers, M. Arnst, C. Soize, Minisymposium "Uncertainty quantification in material sciences", 8th European on Computational Methods in Applied Sciences and Engineering (ECCM 2022), Oslo, Norway, June 5-9, 2022.
. Co-organizers: A. Gandomi, R. Ghanem, C. Soize, Minisymposium "Probabilistic learning, stochastic optimization, and digital twins", ASCE-EMI 2022, Bamtimore, USA, 31 May - 3 June , 2022.
. Co-organizers: C. Soize, E. Chatzy, R. Ghanem, F.A. Rochinha, S.W. Sun, Minisymposium "Uncertainty quantification and probabilistic learning in computational dynamics", EURODYN 2023, Delft, The Netherlands, 2-5 July, 2023.
. Co-organizers: S. Govindjee, R. Ghanem, J. Guilleminot, C. Safta, M. Shields, C. Soize, C. Farhat, Minisymposium "Probabilistic learning and constrained generative models", 17th U.S. National Congress on Computational Mechanics, USNCCM 2023, Albuquerque, New Mexico, USA, 23-27 July, 2023.
. Co-organizers: A. Gandomi, R. Ghanem, C. Soize, Minisymposium "Probabilistic learning, stochastic optimization, and digital twins", ASCE-EMI 2023, Atlanta, USA, June 6-9, 2023.
. Co-organizers: F. Pled, C. Desceliers, M. Arnst, C. Soize, Minisymposium "Uncertainty quantification in materials science and computational mechanics, 9th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2024, Lisbone, Portugal, June 3-7, 2024.
. Co-organizers: C. Farhat, R. Ghanem, S. Govindjee, J. Guilleminot, C. Safta, M. Shields, C. Soize, Minisymposium "Probabilistic learning and constrained generative models", 16th World Congress on Computational Mechanics,(WCCM16) Vancouver, Canada, 21-26 July, 2024.
. Co-organizers: A. Gandomi, R. Ghanem, C. Soize, Minisymposium "Probabilistic learning, stochastic optimization, and digital twins", ASCE-EMI 2024, Chicago, Illinois, May 28-31, 2024.
. Co-organizers: R. Ghanem,C. Heitzinger, C. Soize, Minisymposium "Machine Learning and Artificial Intelligence for constrained cystems", ASCE-EMI 2024, Vienna, Austria, September 11-13, 2024.
. Co-organizers: A. Gandomi, R. Ghanem, C. Soize, Minisymposium "Probabilistic learning, stochastic optimization, and digital twins", ASCE-EMI 2025, University of California, Irvine, California, May 27-30, 2025.
. Co-organizers: C. Desceliers, Jianbing Chen, F. Pled, C. Soize, Minisymposium "Uncertainty quantification, probabilistic and generative models for nonlinear computational mechanics in materials, structures, and coupled systems", ICOSSAR'25, Los Angeles, USA, June 1-6, 2025.
. Co-organizers: F. Pled, G. La Valle, C. Desceliers, C. Soize, Minisymposium "Uncertainty quantification materials science and computational mechanics", WCCM-ECOMAS 2026, Munich, Germany, July 19-24, 2026.
. Co-organizers: G. La Valle, I. Giorgio, A. Misra, C.Soize, D. Steigmann, M. Shirani "Generalize continua and particle-based modeling: Theoretical Foundations, uncertainties, and computational approaches", 20th USNCTAM 2026, Pasadena, California, June21-26, 2026.
. Co-organizers: G. La Valle, C. Soize, I. Giorgio, D.J. Steigmann, "Discrete-to-continuum modeling: theory, scale effects, uncertainty, and computation", 4th International Conference on Nonlinear Solid Mechanics (ICoNSoM 2026), Alghero, Sardinia, Italy, June 11-18, 2026.

### 11.7. Membership of Editorial Boards.

. International Journal of Non-Linear Mechanics, Elsevier, 1996 - present.
. Advances in Mechanical Engineering, Hindawi Publishing Corporation, 2008 - 2013.
. International Journal for Uncertainty Quantification, Begell House, 2009 - present.
. Lecture Notes in Mechanics, Engineering Mechanics Institute, ASCE, 2010 - present.
. ISRN Applied Mathematics, Hindawi Publishing Corporation, 2013 - 2014.
. Advances in Theoretical and Applied Mechanics, Hikari Ltd, 2013 - 2015.
. Computer-Aided Civil and Infrastructure Engineering, Wiley, 2013 - 2016.
. Computers & Structures, Elsevier, 2016 - 2023.

. Computer Methods in Applied Mechanics and Engineering, Elsevier, 2022 - present.

**11.8 Membership of Awards Committee**.

. Member of the 2020 Major and General Awards Committee of IACM (International Association for Computational Mechanics).
. Member of the selection committee for the 2022 SIAG/UG Early Career Prize, Society for Industrial and Applied Mathematics (SIAM).
. Member of the 2022 Major and General Awards Committee of IACM (International Association for Computational Mechanics).