PERSONAL INFORMATION

Frédérique LARRARTE

France

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ORCID : 0000-0001-5536-2170

| Nationality : French

Senior project manager & researcher on fluid dynamics

WORK EXPERIENCE

2020 -

Project manager and senior researcher on fluid dynamics
Univ. Gustave Eiffel (Marne la Vallée) and Laboratoire d'Hydraulique St Venant, Chatou
Coordination of research projects, team leader, supervision of Ph.D and post doctorate scientists and technical staff,
Researches on fluid dynamics, in situ measurements, prototype development

2017 - 2019

Project manager and senior researcher on fluid dynamics
French Institute of Science and Technology for Transport, Development and Networks
Water and Environment Laboratory, Bouguenais.

- Associate researcher at the Laboratoire d'Hydraulique St Venant, Chatou
- Member of the Engineering and Animation team of the du Pole Mer Bretagne Atlantique (Maritime cluster), Brest

1997 - 2017

Project manager and researcher on fluid dynamics
French Institute of Science and Technology for Transport, Development and Networks
Water and Environment Laboratory, Bouguenais.
Coordination of research projects, team leader, supervision of Ph.D and post doctorate scientists and technical staff,
Researches on fluid dynamics, in situ measurements, prototype development, CFD

1995 - 1996

Science and Technology Post-Doctoral Fellow in fluid dynamics
Ship Research Institute (NMRI, http://www.nmri.go.jp/index_e.html),Tokyo, Japan
Researches on naval hydrodynamics, viscous drag reduction, towing tank experiments, CFD

1994 - 1995

Post-Doctoral Researcher in fluid dynamics
Ecole Nationale Supérieure de Technique Avancées, Palaiseau
Researches on cavitation, experiments, image analysis

1990 -1994

Junior Researcher in fluid dynamics
Ecole Centrale de Nantes
Researches on naval hydrodynamics, wave drag reduction, towing tank experiments, CFD

1983 – 1989 (holidays)

Sailing teacher

EDUCATION AND TRAINING

2017

Continuous professional training « MRE Referee » with WEAMEC

- Geotechnics (21 hours)
- Hydrodynamics (14 hours)
- Maritime areas : a share space (7 hours)
- Maritime area and MRE (7 hours)
- State of the art (14 hours)

2016	• Continuous professional training «hydraulics and societies » (15 hours) • Continuous professional training « Risks and coastal societies » (15 hours) • Continuous professional training « Press and climate change » (15 hours) • Continuous professional training « Elementary electric degree » (14 hours).	
2006	Habilitation à Diriger des Recherches - Université de Caen	ISCED 8
1994	Ph. D degree - Ecole Centrale de Nantes & University of Nantes	ISCED 8

PERSONAL SKILLS

Mother tongue: French

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B2	B2	B2
Spanish	B1	B2	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills (see Appendix)

- Coordination of multidisciplinary projects,
- Team leader,
- Supervision of experiments including coordination of Ph.D and post-doctoral scientists, technical staff and local technical authorities.
- Supervision of Ph.D and post-doctoral scientists

Scientific and technical skills

- Fluid mechanics
- Sediment transport
- Experiments
- Member of a PIANC (World Association For Waterborne Transport Infrastructure) committee

Productions (see Appendix)

- Prototypes development
- Papers in Web of Sciences journals
- Papers in professional journals
- Communications in international and national congress

ADDITIONAL INFORMATION

Leisures

- Sailing (from dinghies regattas to a transatlantic cruise on a 10 m boat)
- Traditional rowing (mix of fix seat and sailing)
- Leisure boating licenses (sea and rivers)
- Reading

Appendix 1 – Management of projects

2023 – currently Head of the Villes Bleues project. We realized that Gustave Eiffel University, with its specialization in cities and transport, as well as its technical skills in MREs, civil engineering and environmental issues, is a key player in federating research related to the blue economy, whether this blue is salty or not. Our "Exploration" scientific coordination program, entitled "Villes Bleues" (Blue Cities), aims to organize seminars bringing together all the components concerned, so that each can learn about the work of others, with a view to creating synergies and joint projects.

2023 – currently Co-leader of the VibraScour project on bridge pier scour - 4 partners (LHSV/ ENPC ; UGE/ SRO, UGE/MAST and ENTPE/LTD). The aim is to develop a vibratory method for monitoring bridge pier scour.

2020 - currently Co-leader of the PumpET project for the development and implementation of a low-coast field erodimeter, the work initiated in-house continues in collaboration with the Modélisation et Simulation Multi Échelle (MSME) laboratory for the numerical component and the Pprime institute (https://pprime.fr/) for the experimental component.

2015 – 2019 co animation of the work package 3 of the SSHEAR project (French National Research Agency 2014) – 6 partners – 4352 k€. The main objective of SSHEAR (Soils, Structures and Hydraulics: Expertise and Applied Research) is to improve understanding of scouring process through the use of innovative observation tools and physical and numerical hydraulic modelling, from laboratory to full-scale, for the purpose of optimizing methods specific to diagnostics, advanced warning and general management procedures (http://sshear.ifsttar.fr/).

2012 – 2017 Management of the MENTOR project (French National Research Agency Ecotech 2011), 10 partners, 2900 k€. The main objective of MENTOR (MEasurement sites conception method for sewer NeTwORks.) consists to propose a methodology for the design and the audit of discharge and particulate pollutant loads measurement sites in sewer systems. This project takes benefit of the COACHS project. Additional information can be downloaded on http://wikhydro.developpement-durable.gouv.fr/index.php/Autosurveillance_et_diagnostic_en_r%C3%A9seau_d%27assainissement_-_Projet_MENTOR.

2010 – 2014 Management of the COACHS project (French Ministry of Sustainable Development – C2D2 program 2009), 4 partners, 400 k€. The COACHS (COmputations and their Applications in Channel Hydraulics for Sewers) project has provided operational tools for data processing and use. The 4 technical guides and additional information can be downloaded on http://wikhydro.developpement-durable.gouv.fr/index.php/Autosurveillance_et_diagnostic_en_r%C3%A9seau_d%27assainissement_-_Projet_MENTOR.

2010 – 2011 Management of the Sonar project (Institut Carnot Vitres - 2009) for using a sonar to study the solids settled at the invert of sewer channels.

2009 – 2012 Management of the SER (Sédiment en Réseau) project. This project aimed at improving our knowledge on sediment dynamics within sewers, the main results are being published, additional information can be downloaded on: http://actions-incitatives.ifsttar.fr/seminaires/jee/2013/.

Appendix 2 : Main productions

Appendix 2.1 - Prototypes development.

- **Erodimeter** : we developed a low coast set-up (named pumpET) aiming at measuring the erosion of sediment under water.
- **Continuous monitoring of scour :** we developed set-up aiming to continuously monitor the water level and velocity profile on scour affected sites.
- **Continuous monitoring of sediment height :** we developed a device (named Furrina) aiming at continuously recording the deposit level in a sewer. I contributed and coordinated the definition and choice of the technical performances and constraints, I supervised the building, and I have used the prototype during in-situ experiments.
- **2D samplers** : we developed one two dimensional samplers of the velocity field (named Cerbères), one of the suspended solids field (named Orphée), one of both fields (named Hydre). Those samplers have been used to establish velocity and suspended solids maps within sewers and to investigate the influence of the meteorological context (dry or rain weather), the influence of the compound section on the fields. I have coordinated the definition and choice of the technical performances and constraints, I have supervised the buildings, and we have used those prototypes during in-situ experiments.

Appendix 2.2 : Chapter.

CH 1. E. Béteille , S. Boyaval , F. Larrarte , E. Demay, (2023), Experimental and numerical investigation of dam break flow propagation through various obstacle configurations, selected papers from the SimHydro Conference 2023: New modelling paradigms for water issues?, Springer, ISBN ISBN 978-981-97-4072-7 (eBook), chapter 18, 269-288.

CH 2. A. Doumic , F. Larrarte, R. Rtimi, N. Goutal, (2021), Investigation of the hydraulics in flooded housing estate, Advances in Hydroinformatics, selected papers from the SimHydro 2021 conference, Springer, ISBN: 978-981-19-1600-7, chapter 19, 316-326.

CH 3. Larrarte F., Lepot M., Clemens-Meyer F., Bertrand-Krajewski J.-L., Ivetić D., Prodanović D., Stegeman B., (2021) Chapter 3: Water level and discharge measurements, In Metrology in Urban Drainage and Stormwater Management: Plug and Pray , IWA publishing, doi :10.2166/9781789060119_0035, https://iwaponline.com/ebooks/book/835/Metrology-in-Urban-Drainage-and-Stormwater,

Appendix 2.3 : papers in academic journals.

RI 1. E. Beteille, F. Larrarte, S. Boyaval, E. Demay, M-H Le, (2025), Dam-break flow over various obstacles configurations: Laboratory experiments and numerical simulations, *Journal of Hydraulic Research*, *63*(2), 156–170. https://doi.org/10.1080/00221686.2025.2460020

RI 2. B. Bolon, C. Pretot, C. Clanet, F. Larrarte, and R. Carmigniani, (2023), Drafting of two passive swimmer scale models for open-water races, Physical review fluids, Accepted 12 July 202, https://journals.aps.org/prfluids/

RI 3. M. Oukacine, F. Larrarte, N. Goutal, (2022), Structure of open-channel flows through an array of square cylinders, Urban Water Journal, doi : 10.1080/1573062X.2022.2075771

RI 4. Chevalier, C., Larrarte, F., (2022), Real time instability of flow close to a scour affected abutment. Environ Fluid Mech, 22, pages 495–510 doi : 10.1007/s10652-022-09842-9

RI 5. M. Le Vern, A. Razakamanantsoa, F. Murzyn, F. Larrarte, V. Cerezo,(2022), Effects of soil surface degradation and vehicle momentum on dust emissions and visibility reduction from unpaved roads, Transportation Geotechnics, Volume 37, November 2022, doi:10.1016/j.trgeo.2022.100842

RI 6. Durand A, Mehel A., Fokoua G. Murzyn F., Puech S., Larrarte F, (2021) Numerical and experimental investigations on brake particle dispersion in the flow generated by a train in an underground station, Atmospheric Pollution Research 12 (2021) 101189, doi :/10.1016/j.apr.2021.101189

RI 7. M. Oukacine, S. Proust, F. Larrarte, N. Goutal, (2021), Experimental flows through an array of emerged or slightly submerged square cylinders over a rough bed. Scientific Data , Nature Publishing Group, 2021, 8 (1), doi :10.1038/s41597-020-00791-w

RI 8. F. Larrarte, C. Chevalier, L. Battist, H. Chollet, (2020), Hydraulics and bridges : a French case study of monitoring of a bridge affected by scour, Flow Measurement and Instrumentation 74, doi: 10.1016/j.flowmeasinst.2020.101783

RI 9. M. Le Vern, O. Sediki, A; Razakamanantsoa, F. Murzyn, F. Larrarte, (2020), Experimental assessment of dust emissions on compacted soils degraded by traffic, Atmosphere 2020, 11, 369; doi:10.3390/atmos11040369

RI 10. M. Le Vern, O. Sediki, A; Razakamanantsoa, F. Murzyn, F. Larrarte, (2020), Experimental study of particle lift initiation on roller compacted sand-clay mixtures, Environmental Geotechnics, Environmental Geotechnics, doi: 10.1680/jenge.19.00172

RI 11. R. Rodriguez, F. Murzyn, A. Mehel, F. Larrarte, (2020), Dispersion of ultrafine particles in the wake of car models: a wind tunnel study, Journal of Wind Engineering & Industrial Aerodynamics 198 (2020) 104109, doi:10.1016/j.jweia.2020.104109

RI 12. F. Murzyn, G. Fokoua, R. Rodriguez, C. Shen, F. Larrarte, A. Mehel, (2020), Car Wake Flows and Ultrafine Particle Dispersion: From Experiments to Modelling, Atmosphere 2020, 11, 39; doi:10.3390/atmos11010039

RI 13. A. El Bahlouli, F. Larrarte, (2018), Proposal for improving discharge quantification in urban drainage, Flow Measurement and Instrumentation 60, 51–56, doi: 10.1016/j.flowmeasinst.2018.02.014

RI 14. R. Rodriguez, F. Murzyn, J. Aubry, A. Mehel, F. Larrarte, (2018), An innovative LDV data processing method for statistical error corrections. Application to homogeneous and non-homogeneous seeding, Flow Measurement and Instrumentation 60, 67–77, doi: 10.1016/j.flowmeasinst.2018.02.011

RI 15. A Belleville, G. Pierrefeu, J. Le Coz, F. Larrarte, P. Marchand, M. Pinatton, B. Augeard, P.-M. Bechon, D. Besson, P. Chisne, G. Dramais, C. Josserand, S. Poligot- Pitsch, R. Puechberty, (2017), Hydrometry and standardization, La Houille Blanche, n° 6, 60-69, □□□: 10.1051/lhb/2017059

RI 16. F. Larrarte, M. Dufresne, E Mignot, G Lipeme Kouyi, N Rivière, J Vazquez, C Joannis, (2017), Flow measurement and computational fluid dynamics: contribution to the assessment and control of uncertainties on mean velocity measurement, La Houille Blanche, n° 6, 70-77, doi: 10.1051/lhb/2017060

RI 17. I. Carnacina, F. Larrarte, N. Leonardi, (2017), Acoustic measurement and morphological features of organic sediment deposits in combined sewer networks, Water Research 112, 279-290, doi: 10.1016/j.watres.2017.01.050

RI 18. F. Larrarte, N. Hemmerlé, L. Lebouc, B. Riochet, (2017), Additional elements regarding the muddy layer in combined sewers, Urban Water Journal, Vol. 14, No . 8, doi: 10.1080/1573062X.2017.1325499

RI 19. F. Larrarte, E. Szturycz, L. Lebouc, B. Riochet, (2016), New technique for continuous monitoring of sediment height, Flow Measurement and Instrumentation, Volume 49, June, 40-45, doi: 10.1016/j.flowmeasinst.2016.04.005

RI 20. F. Larrarte, (2015), Velocity and suspended solids distributions in an oval-shaped channel with a side bank, Urban Water Journal, Volume 12, Issue 2, February, 165-173, doi: 10.1080/1573062X.2013.871043

RI 21. I. Carnacina, F. Larrarte, (2014), Coupling acoustic devices for monitoring combined sewer network sediment deposits, Water Science & Technology Volume 69, Issue 8, 1653–1660, doi: 10.2166/wst.2014.064

RI 22. L. Lassabatere, J. H. Pu, H. Bonakdari, C. Joannis, F. Larrarte, (2013), Velocity Distribution in Open Channel Flows: An Analytical Approach for the Outer Region, Journal of Hydraulic Engineering, Volume 139, Issue 1, 37-43, doi: 10.1061/(ASCE)HY.1943-7900.0000609

RI 23. F. Larrarte, P. François, (2012),Attenuation of an ultrasonic beam by suspended particles and range of acoustic flow meters in sewer networks, Water Science & Technology, Volume 65, Issue 3, 478-483, doi: 10.2166/wst.2012.873

RI 24. F. Larrarte, M.-N. Pons, (2011), Suspended solids concentration in wastewater: Influence of sampling conditions, Urban Water Journal, Volume 8, Issue 6, 397–404, doi: 10.1080/1573062X.2011.630094

RI 25. E. Le Barbu, F. Larrarte, (2010), Acoustic profilers and urban pollutant fluxes, European Journal of Environmental and Civil Engineering, Volume 14, Issue 5, 637-651, doi: 10.3166/EJECE.14.637-651

RI 26. J. H. Pu, H. Bonakdari, L. Lassabatère, C. Joannis, F. Larrarte, (2010), Turbulent velocity profiles : a new law for narrow channels, La Houille Blanche, Issue 3, 65-70, doi: 10.1051/lhb/2010036

RI 27. J. Le Coz, F. Larrarte, G. Saysset, G. Pierrefeu, J.-F. Brochot, P. Marchand, (2009), Hydrological measurements by Doppler profiling (aDcp) in France : application to streams and urban networks , La Houille Blanche, Issue 3, 115-122, doi: 10.1051/lhb/2009035

RI 28. F. Larrarte, J-B. Bardiaux, P. Battaglia, C. Joannis, (2008), Acoustic Doppler flow-meters : a proposal to characterize their technical parameters, Flow Measurement and Instrumentation; Volume 19, Issue 5, 261-267, doi: 10.1016/j.flowmeasinst.2008.01.001

RI 29. F. Larrarte, (2008), Suspended solids within sewers : an experimental study, Environmental Fluid Mechanics, Volume 8, Number 3 / juin, 249-261, doi: 10.1007/s10652-008-9073-8

RI 30. H. Bonakdari, F. Larrarte, L. Lassabatere, C. Joannis, (2008), Turbulent velocity profile in fully-developed open channel flows, Environmental Fluid Mechanics, Volume 8, Issue 1, 1-17, doi: 10.1007/s10652-007-9051-6

RI 31. H. Bonakdari, F. Larrarte, C. Joannis, D. Levacher, (2008), Velocity field and shear stress in a sewer , La Houille Blanche, Issue 3, 20-25, doi: 10.1051/lhb:2008022

RI 32. H. Bonakdari, F. Larrarte, C.Joannis, (2008), Study of the shear stress in narrow channels : application to sewers, Urban Water Journal, Volume 5 Issue 1, 15-20, doi: 10.1080/15730620701726275

RI 33. F. Larrarte, (2006), Velocity fields in sewers : an experimental study, Flow Measurement and Instrumentation, Volume 17, Issue 5, 282–290, doi: 10.1016/j.flowmeasinst.2006.08.001

RI 34. V. Ruban, F. Larrarte, M. Berthier, L. Favreau, Y. Sauvourel, L. Letellier, M.-L. Mosisni and G. Raimbault, (2005), Quantitative and qualitative hydrologic balance for a suburban watershed with a separate sewer system (Nantes, France), Water Science & Technology, Volume 51, Issue 2, 231–238, doi : 10.2166/wst.2005.0052

RI 35. P. Jaumouillié, F. Larrarte, V. Milisic, (2002), Numerical and experimental investigations of the pollutant distribution in sewers, Water Science & Technology, Volume 45, Issue 7, 83–93. doi: 10.2166/wst.2002.0120

RI 36. F. Larrarte, J.P. Legendre, Y. Sauvourel, F. Gomin, R. Simon, G. Yviquel, C. Noel, (2001), Doppler velocimetry : implementation of a testing procedure in laboratory and in situ observations, Houille Blanche, Issue 5, 67-74, doi: 10.1051/lhb/2001059

RI 37. T.M. Pham, F. Larrarte, D.H. Fruman, (1999), Investigation of unsteady sheet cavitation and cloud cavitation mechanism, Journal of Fluid Engineering , Volume 121, Issue 2, 289-296, doi: 10.1115/1.2822206

Appendix 2.3 : Papers in professionnal journals.

RP 1. A. El Bahlouli, E. Mignot, F. Denis, N. Riviere, A. Dalmon, G. Lipeme Kouyi, C. Joannis, F. Larrarte, (2017), Fiabilité de la mesure de vitesse débitante à l'aval d'une singularité en réseau d'assainissement, Techniques sciences méthodes, génie urbain génie rural TSM 2017 :1/2, 26-40.

RP 2. F. Larrarte, S. Vareilles, M. Dufresne, N. Riviere, M.N. Pons, G. Lipeme Kouyi, C. Joannis, R. Claverie, G. Chebbo, B. Riochet, K. Wouter Wasiak, R. Visiedo, (2015), MENTOR ou une méthodologie et des outils opérationnels de conception et de qualification de sites de mesures en réseau d'assainissement, TSM, N°5; 5, 49–65

RP 3. F. Larrarte, H. Bonakdari, C. Joannis, (2010), Qualification et conception de sites de mesures débitmétriques en réseaux d'assainissement, Bulletin des Laboratoires des Ponts et Chaussées, N°. 277, 31-41.

RP 4. H. Bonakdari, F. Larrarte, C. Joannis, D. Levacher, (2008), Méthodologie de qualification de site de mesures en réseau d'assainissement - Application à la débitmétrie en collecteur d'assainissement, Bulletin des Laboratoires des Ponts et Chaussées, N° 272, 9-19.

RP 5. F. Larrarte, L.-M. Cottineau, (2008), Le projet Hydre : échantillonnage 2D des vitesses et des concentrations en collecteur d'assainissement, Bulletin des Laboratoires des Ponts et Chaussées, N°. 272, 21-32.

RP 6. F. Larrarte, H. Bonakdari, C. Joannis, D. Levacher, (2007), Effets d'une déviation sur les champs de vitesses en réseaux d'assainissement, TSM. Techniques sciences méthodes, génie urbain génie rural, N° 11, 43 – 50.

RP 7. H. Bonakdari, F. Larrarte, C. Joannis, (2007), Coude et champs de vitesse en réseaux d'assainissement, Revue Européenne de Génie Civil, Vol. 11 – N°4/ 2007, 507-519.

RP 8. H. Bonakdari, F. Larrarte, J.-B. Bardiaux, (2007), Experimental and computational study of velocity fields in narrow or compound section sewers, Water Practice & Technology, Vol. 2, n°2, http://www.iwaponline.com/wpt/002/02/default.htm.

RP 9. F. Larrarte, J-B Bardiaux, Ph Battaglia, C. Joannis, (2006), Vélocimétrie Doppler : mise au point d'un protocole d'essai en laboratoire, TSM. Techniques sciences méthodes, génie urbain génie rural N° 6 , 58 – 65.

RP 10. F. Larrarte, L.-M. Cottineau, (2005), Nouveaux instruments pour connaître les champs de vitesses et de concentrations, Revue Européenne de Génie Civil, Vol. 9/7-8 – 2005, 963-978.

RP 11. F. Larrarte, J.F. Sini, J-P Legendre, Y. Sauvourel, (2000), Champs de vitesses et de concentrations en matières en suspension dans les réseaux d'assainissement : approches expérimentales et numériques, Bulletin des Laboratoires des Ponts et Chaussées, N°. 226, 75-87.

RP 12. F. Larrarte, Y. Kodama, (1997), Trajectory of bubbles under a ship hull and scale effects, Journal of the Kansai Society of Naval Architects of Japan, N° 228, September, 1-6.

Appendix 2.4 : International congresses.

CI 1. Béteille, S. Boyaval, F. Larrarte, E.Demay, (2024), Experimental analysis on the influence of urban forms on unsteady urban flooding, River Flows 2024, 2th – 6th September, 2024, Liverpool, Royaume Uni

CI 2. F. Larrarte, Y. Kerhervé, N. Toutain, H. Jan, (2024), Nantes Métropole's blue spaces: when water sports come back to the Loire, Oceanext 2024, June 12-13th, Nantes, France.

CI 3. E. Béteille , S. Boyaval , F. Larrarte , E. Demay, (2023), Experimental and numerical investigation of dam break flow propagation through various obstacle configurations, SimHydro 2023: New modelling paradigms for water issues?, Nov 2023, Chatou, France

CI 4. F. Larrarte, C. Chevalier, C. Minachy, H. Chollet, (2023), PUMP Erosion Test : an erodimeter for field studies, 11th International Conference on Scour and Erosion, 17th – 21th September, Copenhagen, Denmark

CI 5. T. Brunel, C. Clanet, B. Bolon, F. Larrarte, C. Cohen, C. Prétot & R. Carmigniani, (2023) Validation of a propulsion model in front crawl swimming, XIVth International Symposium on Biomechanics and medicine in swimming, 6th – 9th September, 2023, Leipzig, Germany.

CI 6. B. Bolon, C. Prétot, F. Larrarte , C. Clanet, R. Carmigniani, (2023), Drafting of 2 swimmers in open-water, XIVth International Symposium on Biomechanics and medicine in swimming, 6th – 9th September, 2023, Leipzig, Germany.

CI 7. E. Béteille, F. Larrarte, S. Boyaval and E. Demay, (2023), Providing Validation Data for Numerical Codes dealing with Unsteady Urban Flooding, Proceedings of the 40th IAHR World Congress, August 2023 , Vienna, Austria.

CI 8. F. Larrarte, C. Chevalier, (2023), Pump Erosion Test : a low cost erodimeter for field studies, Proceedings of the 40th IAHR World Congress, August 2023 , Vienna, Austria.

CI 9. F. Larrarte, C. Chevalier, H. Chollet, F. Schmidt, M. Belmokhtar and C. Wintenberger, (2022), Monitoring of Real Sites affected by Scour: Observation, Analysis and Feedback of Field Data, Proceedings of the 39th IAHR World Congress, Granada, June 19–24, doi : 10.3850/IAHR-39WC252171192022438

CI 10. F. Larrarte, A. Doumic, N. Goutal, (2022), Floods in housing estate : some experimental data, Proceedings of the 39th IAHR World Congress, Granada, 19–24 June, doi : 10.3850/IAHR-39WC252171192022577

CI 11. C. Chevalier; F. Larrarte; F. Schmidt; H. Chollet; E. Durand; D. Pham Van Bang; A. Bontemps; P. Sergent; P. Gondret; C. Morize; S. De La Roque; M. Cheetham, (2021), A review of Soils, Structures and Hydraulics: Expertise and Applied Research (SSHEAR) project, 10th International Conference on Scour and Erosion, October 18-21, virtual.

CI 12. M. Le Vern, O. Sediki 1, A. Razakamanantsoa, F. Murzyn, F. Larrarte, P. Insenga, P. Gotteland, (2021), Development of a model to quantify dust emissions from truck traffic on earthmoving sites: approach and preliminary results, Geo-Environmental Engineering GEE2021 ESITC-UniCaen, Caen, May 20-21.

CI 13. M. Le Vern, A. Razakamanantsoa, F. Murzyn, F. Larrarte, V. Cerezo, (2021), Study on a test track of dust resuspension induced by a vehicle, 23rd Transport and Air Pollution Conference, Graz, March 31-April 2.

CI 14. M. Oukacine, R. Rtimi, N. Goutal, V. Loizeau, S. Benhamadouche, S. Proust, F. Larrarte, (2020), Large Eddy Simulation for flows through emerged or slightly submerged square cylinders, River Flow 2020, Delft, July 7-10.

CI 15. M. Cheetham C. Chevalier, F. Larrarte, F. Schmidt, E. Durand, P. Sergent, P. Gondret, S. De La Roque, Soils, Structures and Hydraulics: Expertise and Applied Research (SSHEAR) Project, 12th World Congress On Railway Research, Tokyo, October 28-November 1.

CI 16. A. Durand, A. Mehel, F. Murzyn, S. Puech, F. Larrarte, Cfd Study Of Dispersion Of Particles Generated By Mechanical Braking: Application To Trains In Underground Stations, 12th World Congress On Railway Research, Tokyo, October 28-November 1.

CI 17. F. Larrarte , F. Schmidt , E. Durand, A. Bontemps, Y. Della Longa, M. , S. de la Roque, M. Hosseingholian, C. Chevalier, (2019) A French experience of Structural Health Monitoring of scour affecting river infrastructures., Smart Rivers 2019, Lyon, September 30 - October 3.

CI 18. F. Larrarte, H. Chollet, L. Battist, Y. Della Longa, C. Chevalier **, (2019) A French Experience of Continuous Scour Monitoring on a Real Site, 38th IAHR World congress, Panama, September 1-6.**

CI 19. F. Larrarte, F.Schmidt, N. Boujia, V. Vidal, A. Bontemps, S. de la Roque, C. Chevalier (2019), **Some Elements About Scale Effect on Scour Studies, 38th IAHR World congress, Panama, September 1-6.**

CI 20. R. Rodriguez, F. Murzyn, A. Méhel, F.. Larrarte, (2019), Ultrafine particle dispersion in the wake of a squareback vehicle model, 23rd Transport and Air Pollution Conference, Thessaloniki, May 15-19.

CI 21. A. Durand, A. Mehel, F. Murzyn, S. Puech, F. Larrarte, (2019), Numerical study of particle dispersion emitted from train brakes in underground station, 23rd Transport and Air Pollution Conference, Thessaloniki, May 15-19.

CI 22. C. Chevalier, F. Larrarte, F. Schmidt, E. Durand, P. Sergent, P. Gondret, S. de la Roque, M. Cheetham, M. Hosseingholian, (2018), Research program SSHEAR: Recent advances on the understanding and the control of scour phenomena, 9th International Conference on Scour and Erosion, Taipei, November 5-8.

CI 23. E. Florens, C. Chevalier, F. Larrarte, F. Schmidt, E. Durand, (2018), Scour monitoring on bridge pier—methodology and implementations, 9th International Conference on Scour and Erosion, Taipei, November 5-8.

CI 24. E. Florens, C. Chevalier, F. Larrarte, F. Schmidt, E. Durand, (2018), Scour monitoring on bridge pier – methodology and implementation, River Flow 2018, Lyon, September 5-8.

CI 25. C. Chevalier, F. Larrarte, F. Schmidt, D. Pham-Van-Bang, E. Durand, P Gondret, S. de la Roque, M. Cheetham, M. Hosseingholian, (2017), Understanding and control of scour phenomena: recent advances, 3rd International Symposium GEORAIL 2017, Marne-La-Vallée, November 23-24.

CI 26. C. Chevalier, F. Larrarte, F. Schmidt, D. Pham-Van-Bang, E. Durand, P. Gondret, S. de la Roque, M. Cheetham, M. Hosseingholian, (2017), Understanding and control of scour phenomena: recent advances, 19th International Conference on Soil Mechanics and Geotechnical Engineering, Seoul, September 17-21..

CI 27. F. Larrarte, C. Chevalier, O. Ndoye, E. Durand, D. Pham-Van-Bang, S. de La Roque, (2016), Scour and solid transport on civil engineering structures – a field study, proceedings of THESIS 2016, Two- Phase Modelling For Sediment Dynamics In Geophysical Flows, Tokyo, September 12-14.

CI 28. J.J. Randrianarimanana, L. Lebouc, E. Szturyz, F. Larrarte, (2015), Experimental study of the velocity and suspended solids distribution in wastewater system, E- Proceedings of the 36th IAHR World Congress, The Hague, June 28-July 3.

CI 29. J.J. Randrianarimanana, X. France, F. Larrarte, L. Lebouc, D. Mabilais, P. Augris, M.N. Pons, (2014), Fate of biofilm in sewer and wastewater flowrate entropy, IWA World Water Congress, Lisbon, September 21-26.

CI 30. N. Hemmerle, J.J. Randrianarimanana, C. Joannis, F. Larrarte, (2014), Hydraulics and deposit evolution in sewers, 9th International Symposium on Ultrasonic Doppler Methods for Fluid Mechanics and Fluid Engineering, Strasbourg, August 27-29.

CI 31. N. Hemmerle, C. Joannis, F. Larrarte, (2013), Does lutocline exist in sewers ?, 16th International Conference Transport and Sedimentation of Solid Particles, Rostock, September.

CI 32. F. Larrarte, S. Vareilles, M. Dufresne, N. Rivière, M.N. Pons, G. Lipeme Kouyi, C. Joannis, R. Claverie, G. Chebbo, B. Riochet, K. Wouter Wasiak, R. Visiedo, (2013), MENTOR or how to qualify measurement sites in sewer systems, accepted for 11th IWA conference on instrumentation control and automation, Narbonne, September 18-20.

CI 33. I. Carnacina, .F. Larrarte, (2013), Coupling acoustic devices to monitor combined sewer networks sediment deposits, 7th International Conference on Sewer Processes & Networks, Sheffield, August 28-30, 425-432.

CI 34. A. El Bahlouli, C. Joannis and F. Larrarte, (2013), Effect of a deviation on flow rate measurements in sewer channel, 7th International Conference on Sewer Processes & Networks, Sheffield, August 28-30, 433-440.

CI 35. H. S. Jensen, R Sekar, F. Larrarte, A. M. Osborn, C. A. Biggs, S. J. Tait, (2013), Describing Bacterial Community Diversity in Combined Sewers, 7th International Conference on Sewer Processes & Networks, Sheffield, August 28-30, 149-156.

CI 36. M.N. Pons, F. Larrarte, X. Franfe, L. Lebouc, D. Mabilais, P. Augris, (2013), Biofilm Development and Hydraulic Conditions in Sewers, 7th International Conference on Sewer Processes & Networks, Sheffield, August 28-30, 281-288.

CI 37. T. Valeyre, B. Béchet, F. Larrarte, (2013), Physical and chemical parameters in wastewater and at the water-sediment interface in sewer network, 7th International Conference on Sewer Processes & Networks, Sheffield, August 28-30, 377-384.

CI 38. F. Larrarte, S. Vareilles, M. Dufresne, N. Rivière, M.N. Pons, G. Lipeme Kouyi, C. Joannis, R. Claverie, G. Chebbo, B. Riochet, K. Wouter Wasiak, R. Visiedo, L. Solliec, (2013), Qualifying measurement sites in sewer systems: methodology and operational tool, 8th International Conference Novatech, Lyon, June 23-27.

CI 39. M.N. Pons, X. France, F. Larrarte, (2013), Monitoring the development of biofilms on different materials in sewers, 9th IWA International Conference on Biofilm Reactors, Paris, May 28-31.

CI 40. A. Jerez, C. Chevalier, F. Larrarte, (2012), Erosion measurement on immersed situations: a state of the art, 6th International Conference on Scour and Erosion, Paris, August 27-31.

CI 41. F. Larrarte, M-N Pons, (2011), Biofilm growth and hydraulic conditions in sewers, 34rd IAHR Congress, Brisbane, June 26-July 1st, proceedings sur CD.

CI 42. F. Larrarte, X. France, M-N Pons, (2011), Biofilm growth and hydraulic conditions in sewers, Watermatex Congress, San Sebastian, June 20-22, proceedings sur CD.

CI 43. E. Le Barbu, F. Larrarte, (2010) Acoustic profilers and pollutant flux measurements in urban hydrology, Novatech 2010, June-27-1st July 1st.

CI 44. H. S. Jensen, R. Sekar, P. Deines, J. B. Boxall, A. M. Osborn, S. Tait, F. Larrarte and C. A. Biggs, (2009), Community profiling of bacteria in sewer biofilms, Processes in biofilm, Davies, September, August.

CI 45. F. Larrarte, E. Le Barbu, (2009), Acoustic profilers : a step to urban pollutant flux measurements, 33rd IAHR Congress, Vancouver, August 9-14, proceedings on CD.

CI 46. F. Larrarte, P. François, (2008), Suspended solids and attenuation of ultrasonic beam, 6th International Symposium on Ultrasonic Doppler Methods for Fluid Mechanics and Fluid Engineering, Prague, September 9 -11.

CI 47. F. Larrarte, P. François, (2008), Suspended solids and attenuation of ultrasonic beam, 11th International Conference on Urban Drainage, Edinburgh, Scotland.

CI 48. F. Abda, D. Ensminger, P. François, F. Larrarte, A. Pallarès, P. Schmitt, (2008), In situ comparison of velocity and concentration measurements techniques, 11th International Conference on Urban Drainage, Edinburgh.

CI 49. F. Larrarte, LM Cottineau, (2008), Pollutant fields : the Hydre project, International Symposium on Sediment Management, Lille, July 9-11, 507-514.

CI 50. F. Larrarte, P. François, (2008), On the influence of suspended solids on ultrasonic beams – application to wastewaters, 14th International Conference on Transport and Sedimentation of Solid Particles, St Petersburg, June 23-25.

CI 51. F. Larrarte, L-M. Cottineau, (2008), Experimental investigation of solids and velocities within sewers, 14th International Conference on Transport and Sedimentation of Solid Particles, St Petersburg, June 23-25.

CI 52. V. Ruban, F. Rodriguez, J-M. Rosant, F. Larrarte, C. Joannis, P. Mestayer, H. Andrieu, (2007), Hydrologic and energetic experimental survey of a small urban watershed, 6th International Conference on sustainable techniques and strategies for urban water management, Novatech 2007, Lyon, June 25-28, Tome 3, 1189-1196.

CI 53. H. Bonakdari, F. Larrarte, C. Joannis, (2007), Effect of a bend on the velocity field in a circular sewer with free surface flow, 6th International Conference on sustainable techniques and strategies for urban water management, Novatech 2007, Lyon, June 25-28, Tome 3, 1401-1408.

CI 54. J.B. Bardiaux, J. Vazquez, R. Mosé, H. Bonakdari, F. Larrarte, (2007), Assessment of velocity fields through open-channels: creation of empirical laws., 6th International Conference on sustainable techniques and strategies for urban water management, Novatech 2007, Lyon, June 25-28, Tome 3, 1441-1448.

CI 55. H. Bonakdari, F. Larrarte, (2006), Experimental and numerical investigation on self-cleansing and shear stress in sewers, Sewer Operation and Maintenance, Wien, October 26-27, 19-26.

CI 56. H. Bonakdari, F. Larrarte, (2006), Experimental and numerical study of the shear stress in narrow compound channel, Conference on Turbulence and Interactions, Porquerolles, May 29-2 June 2, proceedings on CD.

CI 57. H. Bonakdari, F. Larrarte, J-B. Bardiaux, (2006), Experimental and computational study of velocity fields in narrow or compound section sewers, 7th International Conference on Urban Drainage Modelling, Melbourne, April 3-7, 169-176.

CI 58. F. Larrarte, J-B. Bardiaux, H. Bonakdari, (2005), Computational and experimental study of velocity profiles in sewers, 10th International Conference on Urban Drainage, Copenhagen, August 21-26, proceedings on CD.

CI 59. F. Larrarte, J-B Bardiaux, Ph Battaglia, (2005), Development of a testing procedures for acoustic Doppler flow-meters, 12th International Metrology Congress, Lyon, June, proceedings on CD.

CI 60. F. Larrarte, H. Bonakdari,, C. Joannis, (2004), How can CFD help for designing the implantation of sensors in sewers ?, 4th International Conference on Sewer Processes and Networks, Funchal, November, 275-282.

CI 61. F. Larrarte, J-B Bardiaux, Ph Battaglia.,(2004) Development of a testing procedure of the acoustic Doppler flowmeters., 4th International Conference on Sewer Processes and Networks, Funchal, November, 267-274.

CI 62. F. Larrarte, F. Lopez (2004), Estimating sampling errors of wastewater related to the isokineticity condition., 12th International Conference on Transport & Sedimentation of Solid Particles, Praha, September 20-24.

CI 63. F. Larrarte, P. Jaumouillié, C. Joannis, (2004), Computational Fluid Dynamics: an aid for designing the instrumentation of sewer sections. 5th International Conference on sustainable techniques and strategies for urban water management Novatech 2004, Lyon, June 6-10, Tome 1, 729-736.

CI 64. V. Ruban, F. Larrarte, M. Berthier, L. Favreau, Y. Sauvourel, L. Letellier, M.L. Mosini, G. Raimbault, Bilan hydrologique quantitatif et qualitatif à l'exutoire d'un petit bassin versant périurbain en région nantaise, 5th International Conference on sustainable techniques and strategies for urban water management Novatech 2004, Lyon, June 6-10, Tome 1, 129-136.

CI 65. F. Larrarte, L-M. Cottineau, D. Bellefleur, (2003), 2D velocity and concentration samplers for particle laden flows. Eurosensors 17, Guimarães, September 21-24, 1015-1018.

CI 66. P. Jaumouillié, F. Larrarte, (2003), Experimental and numerical investigations of influence of the turbulent shear stress on the sedimentation in sewers. European Fluid Mechanics Conference, Toulouse, August 24-28, page 345.

CI 67. P. Jaumouillié, F. Larrarte, (2003), Development of A 2D sampler, EUROMECH 447, Interaction phenomena in turbulent particle-laden flows, Tallin, June 18-20, 53.

CI 68. P. Jaumouillié, F. Larrarte, (2002), Experimental studies of settling velocities of suspended solids in sewers, 11th International Conference on Transport and Sedimentation of Solid Particles, Ghent, September, 383-390.

CI 69. P. Jaumouillié, F. Larrarte, V. Milisic (2002), New devices for 2D sampling of velocities and pollutant concentrations in sewers, 3rd International Conference on sewer process and networks, Paris, April, page 171-178.

CI 70. P. Jaumouillié, F. Larrarte, (2001), Effects of concentration profiles on velocity profiles in sewer, Euromech colloquium 421, Grenoble, September, 1 p.

CI 71. P. Jaumouillié, F. Larrarte, V. Milisic (2001), Numerical and experimental investigations of the pollutants fluxes in sewers, Novatech 2001, 4th International Conference on Innovative Technologies in Urban Storm Drainage, Lyon, 195-204.

CI 72. F. Larrarte, O. Boumatar, C. Joannis, (2001), Development of a testing procedure of the acoustic Doppler flowmeters, Novatech 2001, 4th International Conference on Innovative Technologies in Urban Storm Drainage, Lyon, Lyon, 187-194.

CI 73. F. Larrarte, J- P Legendre, Y. Sauvourel, J-M Paul, A. Grosseau, (2000), Designing a 2D sampler of suspended solids in sewer, 10th International Conference on Transport and Sedimentation of Solid Particles, Wroclaw, September, 227-237.

CI 74. F. Larrarte, P. Labbé, (2000), Field investigation of flow velocities in sewers, 1st World Congress at the International Water Association, Paris, July 3-7.

CI 75. T.M. Pham, F. Larrarte, D.H. Fruman, (1998), Investigation of unstable cloud cavitation., 3rd Symposium on Cavitation, April 1998, Grenoble.

CI 76. F. Larrarte, A. Pauchet, P. Bousquet, D.H. Fruman, (1995), On the morphology of natural and ventilated cavities., Cavitation and Multiphase Flow Forum, ASME - FED, Hilton Head Island