SANDRO G. LONGO: CURRICULUM VITAE

Born: Taviano (Lecce), Italy, on 23.08.1963
Resident: 43125 Parma, via Volturno, 3
Citizenship: Italy
Status: married, one daughter

Contacts

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Scopus: https://www.scopus.com/authid/detail.uri?authorId=7006131769
Web of Science: http://www.researcherid.com/rid/G-9020-2013
Publons: https://publons.com/a/747382/
ResearchGate: https://www.researchgate.net/profile/Sandro_Longo

Formation

- Laurea cum laude in Hydraulic Civil Engineering, University of Bari (presently the Polytechnic of Bari) (Italy), on 18.12.1986. Five years course.
- PhD in Hydrodynamics, V Cycle, May 1993, Florence (Italy) (Consortium Genoa, Padua, Trento and Florence).

Academic position

- Full Professor in Hydraulics in the permanent staff of the University of Parma (Italy), Dec. 2018-.
- Associate Professor in Hydraulics in the permanent staff of the University of Parma (Italy), 2005-2018.
- Assistant Professor in Hydraulics in the permanent staff of the University of Parma (Italy), 1998-2005.

- Director of the Doctorate School in Engineering and Architecture, Sept. 2021-April 2022.

- Coordinator of the Faculty Board of the PhD programme in Civil Engineering and Architecture, University of Parma, 2020 - 2022.
- Member of the Faculty Board of the PhD programme in Civil Engineering and Architecture, University of Parma, since 1999.
- Member of the board of the Doctoral programme in Biogeochemical Fluid Dynamics and their Applications at the University of Granada, since 2014.

Department roles

- Delegate for Research and Third Mission in the Department of Engineering and Architecture, 2017-2019.
- Member of the Committee of the Departmental Quality (PQD), 2017-2019.
- Member of the Joint Committee (Students and Teachers) for Master's Degree in Civil Engineering, 2015-2018.
- Member of the Scientific Committee Area 108, 2011-2014.
- Director of the Hydraulic lab, since 2012.
- Deputy of Researchers in the Faculty of Engineering, 2001-2003.

Research topics

Water-waves generation; numerical modelling of refraction and diffraction of sea waves.
Sediment transport in oscillating periodic flow; LDA flow velocity measurements and sediment concentration measurements. High-speed video image analysis. Particle Image velocimetry, 2D and volumetric.
Turbulence analysis in the swash-zone.
Turbulence at the fluid gas interface.
Debris flows: modelling. Rheology of granular systems. Roll waves and instabilities in mud-flows.
Quality management of soils: distributed model for sediment transport in natural basins.
Transport of non-Newtonian fluids in porous media. Flow in poro-elastic media and in fractures. Non-Newtonian fluid flows.
Gravity currents. Gravity currents in confined stratified ambient fluid. Geophysical buoyant flows.

Sponsors for research activity

- MURST (Italian Ministry for Scientific and Technological Research).
- EU, Human Capital Mobility Program, post-doc fellowship at Wallingford, Oxford, UK, 1993.
- EU, Large Installation Plan H1570 for the use of the pulsating tunnel in the Delft Hydraulics.
- Laboratory, Delft, The Netherlands, 1993.
- University of Florence, post-doc fellowship in the Department of Civil Engineering, 1994.
- EU, Debris Flow Risk Project, at DISTART University of Bologna, Contract ENV4.CT96.0253, 1997.
- EU, Surf and Swash Zone Mechanics, in collaboration with the University of Udine.
- MURST, ex-40%, River morphodynamics project, in collaboration with DISTART University of Bologna.

- Participant to PRIN 2001 Project 2001087728_004 on "Analysis of triggering and of the propagation of soil-slip to describe the risk map and to evaluate the impact on structures", University of Parma.
- Italian MURST and Spanish MURST, Cooperation Italy-Spain, Italian coordinator, with the University of Cantabria, Spain, 2000.
- Junta de Andalusia and University of Granada, Spain, for sabbatical leave in 2010.
- Italian MURST, FFABBR 2017.
- Rheometer TwinDrive by Anton Paar, Scientific Instrumentation Upgrade Programme 2018, University of Parma, 185 000,00 Euro.
- FIL Incentivante 2019, project “Increased road safety on draining pavements through the development of percolation retardant fluids for anti-freezing”, University of Parma, 2019, 70 000,00 Euro.
- National Recovery and Resilience Plan (NRRP): Ecosystem for Sustainable transition in Emilia Romagna, 2022.
- MISE Bando PoC 2022, 50 000,00 Euro.
- National Recovery and Resilience Plan (NRRP): Marcus project in RETURN, 2024, 100 000,00 Euro.

Teaching

- Maritime Hydraulic, Polytechnic of Bari, 1987-1988 (assistance);
- Hydraulics, University of Florence, 1992-1993 (assistance);
- Fluid Mechanics, University of Florence, 1994-1995 (assistance);
- River Hydraulics, University of Florence, 1995-1996 (assistance);
- Measurements and Hydraulic Controls, University of Parma, 1998- 2011;
- Hydraulics for Mechanical Engineering, University of Parma, 2001-2003;
- Fluid Mechanics, University of Parma, 2013-2016;
- Hydraulics, University of Parma, 2016-;
- Environmental and Coastal Hydraulics, University of Parma, 2016-;
- Advanced Hydraulics, University of Parma, 2004-2016;
- Numerical and physical modelling for wind engineering, 2022-;
- Laboratory of Measurements and Hydraulic Controls, University of Parma, 2003-2009.
- Morphodynamics and sediment transport in rivers and basins, short course for CESVIP in Parma, funded by EU2000.
- Inter-University Environmental Hydraulic Master, University of Granada, University of Cordoba, University of Malaga, module of 10 Hours on Laboratory Experimentation and Environmental Hydraulics, 2011.
- III CEIMAR International Summer School on Estuarine and Nearshore Systems: From Fundamentals to Cutting-Edge Knowledge June 5th - June 17th, 2016. Granada, Spain.
- Short PhD level Course (12 hrs) on Advanced dimensional analysis and self-similarity, Parma, 2022.

Students’ supervision

- Master thesis supervisor for 17 students.

- Master thesis supervisor in cotutelle with the University of Granada, starting on October 2017 ending July 2018. Thesis topic: Fluvial erosive dynamic in two Mediterranean basins under climate change scenarios. Implications in management strategies. Foreign tutor: Prof. Agustín Millares Valenzuela, PhD.
- Master thesis supervisor in cotutelle with the Horn Point Laboratory University of Maryland Center for Environmental Science, starting on November 2017, ending July 2018. Thesis topic: Determining flood-ebb dominance at a restored salt marsh on Poplar Island, Maryland, USA. Foreign tutor: Prof. William Nardin, PhD.
- Master thesis supervisor in cotutelle with the University of Granada, starting on February 2019, ending December 2019. Thesis topic: Studio sperimentale sul comportamento di un dispositivo di generazione elettrica a colonna d'acqua oscillante -Oscillating water column (OWC). Foreign tutor: Prof. Antonio Monino, PhD.
- Master thesis supervisor of two theses in cotutelle with Horn Point Laboratory University of Maryland Center for Environmental Science, starting on November 2018, ending December 2019. Thesis topic: Influence of oyster reefs and vegetation communities on coastal sediment transport: a modeling perspective. Foreign tutor: Prof. William Nardin, PhD.
- Master thesis supervisor in cotutelle with the Engineering School of Sustainable Infrastructure & Environment, University of Florida, USA, starting on November 2018, ending October 2019. Foreign tutor: Prof. Alberto Canestrelli, PhD.
- Batchelor thesis supervisor, two theses in Mechanical Engineering, 2023.

Tutor of PhD students:

- 2007-2009, Luca Chiapponi, Thesis topic: Interazione tra superficie libera e turbolenza di forte intensità (Interaction between free surface and strong turbulence), 2010.
- 2015 - 2018 – Fabio Addona, PhD student in cotutelle with the University of Granada (Prof. María Clavero Gilabert). Thesis topic: Wind generated waves.
- 2016 - 2019 – Diana Petrolo, Thesis topic: Gravity currents of Newtonian and non-Newtonian fluids.
- 2016 - 2019 Andrea Lira Loarca, PhD student in cotutelle with the University of Granada (Prof. Asunción Baquerizo Azofra), Thesis topic: Experimental and analytical studies on wave energy converters.

External evaluator of PhD thesis

- 2019 – The University of Queensland.
- 2019 – The University of Granada.
- 2020 – The University of Granada.

Member/President of Commissions for PhD candidates

- 2019 – The University of Parma.
- 2019 – The University of Granada.
- 2020 – The University of Parma.
- 2021 – The University of Granada (2 theses).
- 2023 – The University of Udine and Trieste (4 theses).

Evaluator of scientific profiles for academic upgrading

- 2019 University of Villanova, Pennsylvania.
- 2021 Tel-Hai College, Upper Galilee, Israel.

Member of Commission
2019 – Università Politecnica delle Marche – Extension of Researcher (fixed term) RTDA, ICAR/01, D.R. n. 658 del 13.06.2019.
2019 – Università di Udine – Researcher (fixed term), RTDB, ICAR/02, D.R. n. 356 del 16.05.2019.
2019 – Università di Ferrara – Associate Professor (tenure track), ICAR/01, D.R. n. 571/2019, Prot. n. 82455 del 06/05/2019.
2019 – Università Politecnica delle Marche – Fixed term RTDB, ICAR/01, D.R. n. 992 del 30.08.2019.
2021-2023 – Member of the Commission for the National Scientific Qualification (ASN, Abilitazione Scientifica Nazionale), sc 08/A1, ssdd ICAR/01-ICAR/02, Hydraulics, Hydrology, Hydraulic and Marine Constructions.
2022-Università del Salento – Fixed term RTDB, ICAR/01, D.R. n. 377 del 06.05.2022. Member of the Commission.
2023-Università di Padova – Fixed term RTDA, ICAR/01, PNRR 2022RUAPNRR_CN_EI_01 D.R. n. 240994 del 12.12.2022. Member of the Commission.

Internationalization

- Responsible for the Protocol of International University Cooperation for Educational and Scientific Purposes, signed in September 2009 with the University of Jadavpur, India.
- Responsible for Protocol of International University Cooperation for Educational and Scientific Purposes, signed in December 2009 and signed again in 2016 with the University of Granada, Spain.
- Responsible for Protocol of International University Cooperation for Educational and Scientific Purposes, signed in October 2011 with the University of Cordoba, Spain.
- Responsible for Protocol of International University Cooperation for Educational and Scientific Purposes, signed in October 2011 with the University of Tehran, Iran.
- Responsible for Protocol of International University Cooperation for Educational and Scientific Purposes, signed in April 2018 with the University of Maryland, USA.

Visitors

- Francisco Domínguez Luque, PhD, University of Cordoba, April-June 2011
- Mahdi Khademishamami, m.khademishamami@gmail.com, University of Tehran, May-October 2016
- Manuel Cobos Budia, mcobosb@ugr.es, Grupo de Dinámica de Flujos Ambientales, Universidad de Granada, September 2016
- María Clavero Gilabert, PhD, mclavero@ugr.es, Grupo de Dinámica de Flujos Ambientales, Universidad de Granada, October-December 2016

- Agustín Millares Valenzuela, PhD, mivalag@ugr.es, Grupo de Dinámica Fluvial e Hidrología, Universidad de Granada, end June 2017
- Ángel Molina Salas, PhD student, amsalas@ugr.es, Universidad de Granada, November 2022-February 2023

Conferences and Referee activity

- 1st Summer School on Stability of Rivers and Coastal Forms, Perugia, 1990.
- National Conference on Hydraulics, Cosenza 1990.
- National Conference on Hydraulics, Firenze 1992.
- LIP (Large Installation Plan) 1570 in Delft Hydraulics Laboratory, Delft, The Netherlands, 1993.
- National Conference on Hydraulics, Napoli 1994.
- Course on "Debris flow hazards: initiation, rheology and deposition of fans", National Council for Research I.R.P.I., Perugia, 1996, by X. Whipple.
- National Conference on Hydraulics, Torino 1996.
- Course on "Uncertainty in Engineering: Probability, Fuzziness and Anti-Optimization", Udine, International Centre for Mechanical Sciences (CISM), 30/6-4/7/1997.
- Course on "Recent advances in boundary layer theory", Udine, International Centre for Mechanical Sciences (CISM), 7/7-11/7/1997.
- XXIII European Geophysical Society Annual Assembly, Nizza 1998.
- National Conference on Hydraulics, Catania 1998.
- XXIV European Geophysical Society Annual Assembly, The Hague 1999.
- X International Society of Offshore and Polar Engineering Conference, Seattle, 2000.
- National Conference on Hydraulics, Genova, 2000.
- Co-convener of the Open session on mass movements, Rainfall triggered landslides and debris flow at European Geophysical Society Assembly, Nice, April 2000.
- Seminar on Debris Flows and Debris-Flow Hazards Mitigation, 8 h, Environmental Hydraulic Protection, University of Parma, 11-25 May 2000.
- Seminar on Debris Flow Mechanics, 4h Dipartimento di Georisorse e Territorio, Università di Udine, May 2000.
- Guest editor of Physics and Chemistry of the Earth, April 2000.
- Co-convener of the Open session on mass movements, Rainfall triggered landslides and debris flow, XXV European Geophysical Society Assembly, Nizza, April 2000.
- *Fourth Conference on Coastal Dynamics, ASCE*, Lund, Sweden, 11-15 June 2001.
- National Conference on Hydraulics, Potenza 2002.
- Member of the European Mechanics Society (EUROMECH).
- *Debris-Flow Hazards Mitigation: Mechanics, Prediction and Assessment. Third International DFHM Conference*, Davos, Switzerland, September 10-12, 2003.
- National Conference on Hydraulics, Trento 2004.
- International Conference on Coastal Engineering, ICCE2004, Lisbon, Portugal, 2004.
- River Flow 2004, Naples, Italy, 2004.
- River Basin Management III Congress, Bologna, 2005.
- 1st International Conference on the Application of Physical Modelling to Port and Coastal Protection, Porto, Portugal, 2006.
- River Flow 2006, Lisbon, Portugal, 2006.
- National Conference on Hydraulics, Rome 2006.

- IAHR Conference, Venice, 2007.
- *XVIII Congresso Associazione Italiana di Meccanica Teorica e Applicata – AIMETA* - Brescia, 11-14 Settembre 2007.
- Hydraulic Measurements & Experimental Methods Conference (HMEM 2007), Lake Placid, NY, 2007.
- AIOM 2018, Università del Salento, Lecce, Sept. 2018.
- SCACR19, Bari, 9-11 Sept. 2019.
- AIOM 2019, Università di Firenze, Firenze, Nov. 2019.
- IAHR 2022, Granada, June 2022 – Chair of Session.
- AIOM 2022, University of Parma, Oct. 2022.
- AIOM 2023, University of Milan, Oct. 2023.

Seminars

- Chairman for the Conference Session "Environmental Flow II" at ISUD6, Prague, 9-11 September 2008.
- Seminar on Measurements of velocity, water level and traceability of the Laboratories, 1st IAHR-WMO Short Course on Stream gauging, Brescia 6-9 September 2011.
- Seminar on Free surface gravity currents and gravity currents in porous medium for Newtonian and non-Newtonian power-law fluids, Granada, 10th April 2013.
- Seminar at Doctoral level: Constitutive laws: theoretical models and experimental practice. Industrial Doctorate University of Parma, May 24th, 2017.
- Invited talk: History of experimental works in coastal engineering. The Engineer and the Sea, Tribute to Miguel A. Losada, September 29, 2017, Granada.
- Seminar on Gravity-driven flows of non-Newtonian fluids in porous media, BPI, University of Cambridge, 25th Jan. 2018.
- Member of the Scientific Committee for the National Conference of Hydraulics and Hydraulics Structures, Ancona, 2018.
- Invited seminar for UNITEL, "Linee Guida Nazionali per la difesa della costa dai fenomeni di erosione e dagli effetti dei cambiamenti climatici", una versione avanzata e in discussione, 16th February 2018.
- Invited seminar at PIANC-AIOM Workshop on Innovation in Maritime Engineering, Lecce, 12-13 October 2018, Università del Salento, Italy.
- Seminar on "Linee Guida Nazionali per la difesa della costa dai fenomeni di erosione e dagli effetti dei cambiamenti climatici", Ordine Ingegneri di Parma, Parma, 8 March 2019.
- Seminar on "Flows of non-Newtonian fluids in porous media and fractures", in X Workshop on Porous Media - Flow in porous media and fractures - Web Conference – organized by Prof. Pedro T. P. Aum - Federal University of Pará (UFPA); Prof. Edson de A. Araújo - Federal University of Pará (UFPA); Prof. Tito J. Bonagamba - University of São Paulo (USP); Dr. Éverton Lucas-Oliveira - University of São Paulo (USP). 17th July 2020.
- Invited speaker at Conference on Scaling and Extremes in Water Science - 'Workshop on extreme and scaling phenomena in hydraulic and hydrological sciences', Università del Salento, Lecce, June 29, 2022.
- President of the LOC and in the Scientific Committee for AIOM 2022, Parma, 20-22 October 2022.
- Member of LOC for International Conference in Coastal Engineering 2024 (ICCE2024).

- Invited keynote lecturer at AIOM 2023, Milan. keynote speaker on: Wind waves, breakers, with currents, with density stratification. The focial regime in the laboratory.
- Ecomondo, Rimini, 9 november 2023 - The role of wind and air currents in the health and safety of cities and homes.

Referee activity

Expert in the Commission for Chartering of Engineers, 2002.
Expert in the Commission for Chartering of Engineers, 2018.
President of the Commission for Chartering of Engineers, 2020.

https://publons.com/a/747382
Awards on Publons
Top reviewer in GEOSCIENCES, 2019 and 2019, in ENVIRONMENT AND ECOLOGY, 2019, in CROSS_FIELD, 2019. Excellent Reviewer

Performed 341 reviews for journals including Energy and Renewable Energy; placing in the 98th percentile for verified review contributions on Publons up until October 2019.
8 of these reviews were rated "Excellent" in quality by an editor. Referee for:
Energy, Renewable Energy, Science of the Total Environment, Journal of Molecular Liquids, Water Resources Research, Geophysical Research Letters, Scientific Reports, Advances in Water Resources, Remote Sensing, Geomorphology, Powder Technology, Communications in Nonlinear Science and Numerical Simulation, Polymers, Journal of Fluid Mechanics, Journal of Geophysical Research: Oceans, Journal of Wind Engineering and Industrial Aerodynamics, Coastal Engineering, Boundary-Layer Meteorology, Journal of Fluids and Structures, Journal of Petroleum Science and Engineering, Entropy, Physics of Fluids, The European Physical Journal Plus, Ocean Engineering, Experiments in Fluids, Acta Mechanica, Journal of Hydro-Environment Research, Journal of Hydraulic Engineering, Journal of Hydraulic Research, Sustainability, Water, European Journal of Mechanics - B/Fluids, Continental Shelf Research, Journal of Computational Science, Journal of Fluids Engineering, Environmental Fluid Mechanics, Geo-Marine Letters, Applied Sciences, Journal of Heat Transfer, Journal of Waterway, Port, Coastal and Ocean Engineering, The Canadian Journal of Chemical Engineering, Symmetry, Coastal Engineering Journal, Mathematical Problems in Engineering, Journal of Mechanics of Materials and Structures, Journal of Porous Media, Water Management, Indian Journal of Geo-marine Sciences, International Journal of Power and Energy Systems, Progress in Computational Fluid Dynamics, An International Journal, Nonlinear Engineering, Mathematical and Computational Applications

- Associate Editor for Water Resources Research since November 2019.
- Associate Editor for the Geoenergy Science and Engineering (former Journal of Petroleum Science and Engineering), Elsevier, since 2017.
- Member of the Editorial Board of Mathematical Problems in Engineering, 2016-2021.
- Guest Editor for the Special Issue in Water (MDPI): Non-Newtonian Fluids in Environmental Hydraulics: Modelling and Applications (Editors: Vittorio Di Federico, Valentina Ciriello, Sandro Longo), 2020.
- Guest editor of Physics and Chemistry of the Earth, April 2000.

Editorial Record Summary
14 Water Resources Research
160 Journal of Petroleum Science and Engineering
31 Mathematical Problems in Engineering

Projects evaluation

- Evaluator of one project in the National Research Projects PRIN, 2008.
- Evaluator of several National Research Projects FIRB, since 2010.
- Evaluator for three projects by NEW EURASIA foundation projects, 2011.
- Evaluator of three projects in the National Research Projects PRIN, 2012.
- Member of the Commission for evaluating the mini-hydro energy generation projects of the Province of Parma, Italy, 2012.
- Evaluator for two projects in Operational Programmes "Competitiveness and entrepreneurship" and regions in transition national strategic reference framework, NSRF 2007-2013, Hellenic Republic, 2012.
- Evaluator for five projects for national bids sponsored by National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan, 2013.
- Evaluator for ten projects by NEW EURASIA foundation projects, 2013.
- Evaluator of a project for National Science Foundation (NSF), USA, 2013.
- Evaluator for Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO), 2014.
- Evaluator for 23 projects for national bids sponsored by National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan, 2014.
- Evaluator for Proposals– Individual Research Grants - for Israel Science Foundation, 2015.
- Member of the Commission for evaluating Macroprogetto 6 – Comuni di Francavilla al Mare, Ripa Teatina e Torrevecchia Teatina, ACA SpA, Pescara, **2.122.903,98 euro**, Determina 442/2015.
- Member of the Commission for evaluating the offers for: Adeguamento e ottimizzazione del Depuratore di Pescara, **7.879.939,55 euro,** ACA SpA, Pescara, Determina 439/2016.
- Evaluator for Israeli Ministry of Science, Technology and Space, Call for Proposals 2016: Research Program "Applied and Engineering Research 2017".
- Evaluator for 13 projects for national bids sponsored by National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan, 2017.
- Evaluator for 1 project Ministerio de Economía, Industria y Competitividad, Spain, 2017.
- Evaluator for 2 projects Ministerio de Economía, Industria y Competitividad, Spain, 2018.
- Evaluator for Tec 21: Engineering solutions for the 21st century's increasingly complex challenges, 2018.
- Evaluator for Turbulent Superstructures SPP 1881/2, German Research Foundation, 2019, 6 proposals.
- Evaluator for FONDECYT Initiation into Research 2019, Chile.
- Evaluator for Czech Science Foundation, 2019.

- Evaluator for the Croatian Science Foundation, call for proposals “Research projects”, 2019.
- Evaluator for US-Israel Agricultural Research & Development Fund, 2019.
- Evaluator for FONDECYT Initiation into Research 2020, Chile.
- Evaluator for FONDECYT Initiation into Research 2022, Chile.
- Evaluator for projects funded by the University of Florence to support researcher (RTD), 2021.
- Evaluator for The Swiss National Science Foundation, 200021_207323, 2021
- Evaluator for 1 project for national bids sponsored by National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan, 2022.
- Evaluator for 2 projects for national bids sponsored by National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan, 2023.
- Member of the Commission for evaluating project proposals for FER: CIG 93329523A2 "Nuovo ponte sull'Enza e soppressione P.L. n°31 e n°33", 2023.
- Evaluator for research proposal submitted to Israel Foundation: The roughness sublayer over complex young wind wave field: Experiments and Theory, ISF_1632_2023_1213114_0, 2023.

Miscellaneous

In the top class of the ranking list of research quality in the Dipartimento di Ingegneria Civile, Architettura, Territorio e Ambiente (DICATeA), FIL 2014.
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2016 (Prot. n. 0000490 del 22/03/2017 - [UOR: SI000067 - Classif. III/13]).
Funded by the Ministerial Finanziamento della Ricerca di Base (FFABR 2017).
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2018 (Prot. n. 0000396 del 07/02/2019 - [UOR: SI000067 - Classif. III/13]).
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2019 (Prot. n. 00001348 del 28/04/2020 - [UOR: SI000067 - Classif. III/13]).
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2020 (Prot. n. 00002627 del 10/06/2021 - [UOR: SI000067 - Classif. III/13]).
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2021 (Prot. n. 0106962 del 02/05/2022 - [UOR: SI000084 - Classif. III/13]).
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2022 (Prot. n. 00431235 del 13/02/2023 - [UOR: SI000084 - Classif. III/13]).
In the top class of the ranking list of research quality in the Dipartimento di Ingegneria e Architettura (DIA), FIL 2023 (Prot. n. 005529 del 08/11/2023 - [UOR: SI000067 - Classif. III/13]).

Invited professor at the IUT, Université de Bretagne Occidentale, Brest, France, 1st May – 8th June 2001.
Visiting Professor in sabbatical leave at CEAMA, University of Granada, Spain, March-August 2010.
Academic Visitor in sabbatical leave at the University of Cambridge, CUED, UK, March-July 2012.
By-Fellow of Churchill College, Lent term 2012, Cambridge.

Publications

Thesis

Longo, S., 1986. Indagine sperimentale sui risultati di due diversi modelli automatici per la valutazione degli effetti di rifrazione dell'onda ai fini della progettazione di un'opera a mare (Experimental analysis of two different numerical codes for the evaluation of sea gravity waves refraction for planning man-made structures in marine environments). Tesi di Laurea in Ingegneria Civile Idraulica, Università degli Studi di Bari, Italy, cum laude. (in italian)

Longo, S., 1993. *Interazione fluido sedimenti in campo di moto periodico oscillante in condizioni di sheet flow. (Fluid sediment interaction in periodic flow in sheet flow condition*). Tesi di Dottorato in Idrodinamica, Florence, Italy. (in italian)

Technical reports

Longo, S. and Wallace, H., 1993. *Two phase model of sheet flow: comparison with data*. MAST 6GM, Workshop, Grenoble, France.

Katopodi, I., Ribberink, J.S., Ruol, P., Koelewijn, R. Lodahl, C. and **Longo, S.**, 1994*. Intra wave sediment transport in an oscillatory flow superimposed on a mean current*. Report H 1684 on LIP 1570 experiment, Delft Hydraulics Laboratory, The Netherlands.

Longo, S., 1995. *Asymptotic stability of bounded granular shear flow*. University of Florence, Italy.

Longo, S., 1996. *Asymptotic stability of granular 'heated' flow*. University of Florence, Italy.

Longo, S., 1996. *Sediment transport in sheet-flow condition.* Start-up meeting Debris Flow Risk Project, Bologna, Italy, October.

Longo, S. and Lamberti, A., 1997*. Lagrangian model of a binary mixture*. 1st meeting Debris Flow Risk Project, Grenoble, France, June.

Longo, S. and Lamberti, A., 1997. *Granular shear flow in a rotating drum*. 1st meeting Debris Flow Risk Project, Grenoble, France, June.

Longo, S. and Lamberti, A., 1997. *Granular shear flow in a rotating drum*. New experiments. 2nd meeting Debris Flow Risk Project, Paris, France, December.

Longo, S. and Lamberti, A., 1998. *Granular shear flow in a rotating drum. Kinetic stress tensor*. 3rd meeting Debris Flow Risk Project, Cortina, Italy, June.

Nsom, B., **Longo, S.**, Ancey, C. and Arattano, M., 1999. *Debris flow rheology and flow resistance*. Final Report on Debris Flow Risk Project, Vol.1, Bologna, Italy.

Petti, M., **Longo, S.**, Sadun, S. and Tirindelli, M., 1999. *Swash zone hydrodynamics on a 1:10 bottom slope : laboratory data*. Surf and Swash zone Mechanics (SASME) Report FIUD-01-98, Florence, Italy.

Petti, M., **Longo, S.** and Pasotti, N., 1999. *Swash zone hydrodynamics on a 1:5 bottom slope: laboratory data*. Surf and Swash zone Mechanics (SASME) Report FIUD-02-99, Udine, Italy.

Petti, M., **Longo, S.** and Pasotti, N., 2000. *Swash zone hydrodynamics on a 1:15 bottom slope: laboratory data*. Surf and Swash zone Mechanics (SASME) Report FIUD-02-99, Udine, Italy.

Mignosa, P., **Longo, S.**, Aureli, F., 1999. *Prove di trasmissività idraulica dei pannelli drenanti prodotti dalla Ditta Borghi Azio S.p.A.*, Dipartimento di Ingegneria Civile, Università degli Studi di Parma, Italy (in italian).

Longo, S., Losada, I.J., Petti, M., Pasotti, N. and Lara J., 2001. *Measurements of breaking waves and bores through a USD velocity profiler*. Technical Report UPR/UCa_01_2001, University of Parma, Italy, University of Santander, Spain.

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Guest Editor

Special Issue in Water (MDPI): Di Federico, V., Ciriello, V., Longo S.: Non-Newtonian Fluids in Environmental Hydraulics: Modelling and Applications.

Patents

- Optical instrument for measuring 2-D tangential velocity (National Patent No 0001355886 23/2/2009).
- Anti-icing solution for winter maintenance of permeable or macro rough road pavements (Soluzione antigelo per la manutenzione invernale delle pavimentazioni stradali drenanti o macro rugose) (National Patent pending 102021000025154 30/09/2021)

Research grants and contracts

a) Principal Investigator

1. Torre Pali, Salve, Italy, 1987, Waves and wind forecast and transformation. Comune di Salve (LE).
2. Foce del Fortore, Foggia, Italy, 1987, Waves and wind forecast and transformation and longshore sediment transport analysis. Studio Torres, Serracapriola (FG).
3. Porto Cesareo, Italy, 1987, Waves and wind forecast and transformation.
4. Punta Matese, Italy, Palermo, January 1990, Waves and wind forecast and transformation. Studio Ballerini, Genova.
5. Portoferraio, Italy, Isola d'Elba, December 1991, Waves and wind forecast and transformation.
6. Trani, Italy, May 1992, Waves and wind forecast and transformation. Studio Ballerini, Genova.
7. Gulf of Venezuela, September 1992, Waves and wind forecast and transformation. Longshore sediment transport analysis. Studio Ballerini, Genova.
8. Molfetta, Italy, October 1992, Rubble mound breakwater planning. Studio Ballerini, Genova.
9. Sirmione, Italy, Lago di Garda, January 1993, Waves and wind forecast and transformation. Studio Ballerini, Genova.
10. Levanto, Italy, October 1993, Waves and wind forecast and transformation. Studio Ballerini, Genova.
11. Noli-Spotorno marina, Italy, 1993, Waves and wind forecast and transformation. Internal waves. Studio Ballerini, Genova.
12. Sanremo Harbour, 1996, Waves and wind forecast and transformation. Internal waves. Studio Ballerini, Genova.
13. Trieste Harbour, Italy, 1997, Waves and wind forecast and transformation. Studio Ballerini, Genova.
14. Levanto, Italy, 1997, Cross-shore e long-shore sediment transport analysis. Studio Ballerini, Genova.
15. Chiavari, Italy, 1997, Cross-shore e long-shore sediment transport analysis. Studio Ballerini, Genova.
16. Porto Ercole, Italy, 1997, Waves and wind forecast and transformation. Internal waves. Studio Ballerini, Genova.
17. Oristano, Italy, 1998, Waves and wind forecast and transformation near a pier.
18. Milazzo, Italy, 1999, Waves and wind forecast and transformation near a pier. Studio Ballerini, Genova.
19. Piombino, Italy, 1999, Waves and wind forecast and transformation. Internal waves. Studio Ballerini, Genova.
20. Noli-Spotorno, Italy, 2001, Harbour tranquillity. Studio Ballerini, Genova.

21. Water hammer effects analysis in the fire-fighting pipelines in Monte Bianco tunnel, 2001. CIAB s.r.l, Bologna.
22. Brindisi, Italy, 2002. Waves and wind forecast. Wave propagation in the Harbour. Studio Ballerini, Genova.
23. Dubai, 2002, Preliminar wave forecast and refraction analysis near a desalter intake. Studio Ballerini, Genova.
24. Civitavecchia, Italy, 2003, Waves and wind forecast; Harbour tranquillity Studio Ballerini, Genova.
25. Genova, Italy, 2004. Internal waves in the Channel of Genova Harbour, Expo Area. Studio Ballerini, Genova.
26. Genova, Italy, 2005. Internal waves and harbour tranquillity near a planned dam in Genova Harbour, Expo Area. Studio Ballerini, Genova.
27. Parma, Italy, 2007. Preliminary design of a jet deposition system for CdTe in building solar cells. Arendi srl.
28. Kristel (Algeria), 2008. Internal waves and harbour tranquillity. Studio Ballerini, Genova.
29. Genova Voltri, Italy, 2009. Hydraulic analysis for the new ferry boat harbour. Studio Ballerini, Genova.
30. Campione del Garda, Italy, 2009. Hydraulic analysis for the planned South Marina, Coopsette scrl.
31. Messina, Italy, 2010. Hydraulic analysis for the new planned harbour. Studio Ballerini, Genova.
32. Campione del Garda, Italy, 2010. Project of the South Marina (in collaboration with Studio Ballerini Genova), Coopsette scrl.
33. Bar (Montenegro), 2011. Preliminary wave forecast and refraction analysis. Studio Ballerini, Genova.
34. Campione del Garda, Italy, 2011, Progettazione del modello fisico 3D per il Marina Sud, finalizzato allo studio di agitazione interna e all'ottimizzazione del layout, Coopsette scrl.
35. Contract for the execution of measurements and tests, project PRRIITT No 126, call 7th July 2008 DGR n.1043/2008 between the Department of Civil Engineering, University of Parma (DICATeA) and MECTILES ITALIA SRL, 2012.
36. Venice, Italy, 2015 Consultant for the Project for a new cruise terminal in Venice, project Venis Cruise 2.0, commissioned by Duferco Engineering SpA to University of Parma.
37. Savona,Italy, 2015 Consultant for the harbour tranquillity in the project of an extension of the commercial harbour. Studio Ballerini, Genova.
38. Contract for the execution of analysis of the loads in vertical PVC pipelines, Plafondplast srl, 43010 ROCCABIANCA (Parma) – Italy, 2015.
39. Expert for Vitali spa in the arbitration against Varisco Wellpoint srl Camera di Commercio di Bergamo, 2015.
40. S.A.C.B.O. - Società per l'Aeroporto Civile di Bergamo Orio al Serio S.p.A – Analysis of the of roof drainage systems under extreme events – new Terminal of the airport Il Caravaggio, 2016.
41. SISGEO srl, Via F. Serpero 4/F1 20060 Masate (MI) - Italy - Analysis of the of performances of differential level measurements trough pressure transducers, 2018.
42. Genova Nervi, Italy, 2019 Consultant for the harbour tranquillity. Studio Ballerini Associati, Genova.
43. Genova Pegli Castelluccio, Italy, 2021 Consultant for the harbour tranquillity. Studio Ballerini Associati, Genova.

44. Chiavari, 2023 Consultant for the Critical analysis of the Meteomarine/Hydraulic study of the proposed Chiavari wastewater treatment plant, already submitted by the proponents Metropolitan City of Genoa/IREN. Virtual srl, Chiavari.

b) Collaborator

1. Litorale di Marinella, Italy, Sarzana, June 1995, Waves and wind forecast and transformation. Sediment transport analysis. In collaboration with the University of Florence, Italy.
2. S.M. di Leuca Harbour, Italy, 1997, Waves and wind forecast and transformation. Internal waves. Studio Stasi, Lecce. In collaboration with the University of Bologna, Italy.
3. Hydraulics permeability coefficient measurements. Hydraulic Laboratory of the University of Parma, 1999.
4. Adda River, Italy, 1997, Scouring estimation near a railways bridge. Analysis of sediment transport and water quality in the basins of Taro, Panaro, Nure and Secchia rivers, North Italy, 2000.
5. Physical model of the outflow for the dam on Arno Torrent, Gallarate. Hydraulic Laboratory of The Department of Civil Engineering, University of Parma, 2003.
6. Physical model of the dam on Parma Torrent. AIPo-Hydraulic Laboratory of The Department of Civil Engineering, University of Parma, 2004.
7. Physical Model of the planned flood area on Chisola Torrent and Rio Torto Torrent, Piemonte, Italy. AIPo-Hydraulic Laboratory of The Department of Civil Engineering, University of Parma, 2006.
8. Physical model for measuring forces acting in the spillway stilling basin of the dam on Parma Torrent. AIPo- Hydraulic Laboratory of the Department of Civil Engineering, University of Parma, 2008.
9. Marina di Carrara, Italy, 2010. Internal waves and harbour tranquillity for a planned new harbour in Marina di Carrara. Polytechnic of Milan, Italy.
10. Parma, Italy. Physical model for the river expansion chambers for Baganza Torrent. AIPo, 2019.

Further information

- Tenant of Genio Militare, Italian landforces, since 1988.
- Judge Consultant of the Court for Public Water in Florence (membro non togato del Tribunale Regionale delle Acque Pubbliche, TRAP) for Tuscany and Emilia Romagna, 2004-2019.
- Consultant for the Court (consulente della Procura della Repubblica) of Parma, 2014.
- Consultant of the Civil Tribunal of Parma, 2019.
- Chartered Engineer since 1987.

Parma, January 2024