

CURRICULUM VITAE

GENERALITIES

Name	Maurizio Brocchini (Ph.D.)
Place and date of birth	Senigallia, 2 July 1964
Family	Married with Cristina, 2 children
Home address	Via Sardegna 27/B, 60019 Senigallia, Italy Tel. 071 792 7817
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EDUCATION

In 1989 he graduated with full marks and honours in Theoretical Physics at the University of Bologna discussing a thesis on ‘Gravitational effects on the semiclassical evolution of vacuum states’. Supervisor: Prof. R. Balbinot.

In 1996 he earned his Ph.D. in Applied Mathematics at the School of Mathematics of the University of Bristol, U.K. under the supervision of Prof. D.H. Peregrine. Dissertation title: ‘Flows with freely moving boundaries: the swash zone and the turbulence at a free surface.’ External examiner: Prof. J.A. Battjes. Internal examiner: Dr. R.R. Kerswell.

SCIENTIFIC INTERESTS

Coastal and Offshore hydrodynamics and morphodynamics. Fluid-structure interactions. Renewable energies. Turbulence dynamics. Quasi-2D/shallow water turbulence. Two-phase flows. Mixing phenomena. Climate change dynamics. Micro-nanofluidics. Hydrodynamic stability. Mathematical/numerical modelling of hyperbolic and dispersive equations.

WORK EXPERIENCES, RESEARCH AND TEACHING

In the period 1989-1993 he was employed at the *Environmental Division* of the engineering company *Snamprogetti S.p.A.* His research duties ranged from the modelling of nearshore dynamics (development of a Boussinesq-type model) to the modelling of seabed sediment transport and liquefaction.

In 1993 he was *Visiting Scientist* at the *Atmospheric Department of U.C.L.A.* His collaboration with Prof. M.G. Wurtele brought to a new and simplified model for the 'objective analysis of wind fields'.

In the period 1993-1997 he was *Visiting Research Fellow* at the *School of Mathematics* of the *University of Bristol* funded by the EU within the *Human Capital Mobility Program* framework. He collaborated with Prof. D.H. Peregrine to research projects dealing with the modelling of the nearshore hydrodynamics.

In the period 1997-2004 he was *Assistant Professor* at the *Department of Environmental Engineering* of the University of Genova. His teaching duties were concerned with both undergraduate courses (*Hydraulics, Environmental Hydraulics* and *Fluid Mechanics*) and postgraduate courses (*Fundamentals of Nonlinear Shallow Water Modelling* and *Water Waves for Engineers*).

In the period 2004-2006 he was *Associate Professor* of *Fluid Mechanics* and *Environmental Hydraulics* at the *Department of Environmental Engineering* of the University of Genova.

In the period 2006-2014 he was *Associate Professor* of *Hydraulics* and *Fluid Mechanics* at the *Dipartimento I.C.E.A.* of the Università Politecnica delle Marche.

Starting November 2014 he is *Full Professor* of *Hydraulics* and *Fluid Mechanics* at the *Dipartimento I.C.E.A.* of the Università Politecnica delle Marche.

In the period 2012-2015 he was *Coordinator of the PhD programme in Civil, Environmental and Building Engineering and Architecture*.

In the period 2015-2018 he was *Head* of the *Dipartimento I.C.E.A.* of the Università Politecnica delle Marche.

Starting July 2018 he is *Member of the Scientific Committee* of the *Cluster Tecnologico Nazionale "Blue Italian Growth"*.

In the period 2018-2021 He was, for a second period, *Head* of the *Dipartimento I.C.E.A.* of the Università Politecnica delle Marche.

RESEARCH VISITS

Summer 1997: *Center for Applied Coastal Research* (University of Delaware). Invited by Prof. I.A. Svendsen;

Winter 1998-1999: *Center for Applied Coastal Research* (University of Delaware). Invited by Prof. I.A. Svendsen;

Summer 2000: *Center for Applied Coastal Research* (University of Delaware). Invited by Prof. I.A. Svendsen;

Winter 2009: *EPOC-MATMECA* (University of Bordeaux). Invited by Prof. P. Bonneton;

Winter 2010: *EPOC-MATMECA* (University of Bordeaux). Invited by Prof. P. Bonneton;

Spring 2012: *Laboratory of Environmental Hydraulics (LHE)* (École Polytechnique Fédérale de Lausanne, EPFL). Visiting Professor, upon invitation by Prof. C. Ancey.

Spring 2013: *Laboratory of Environmental Hydraulics (LHE)* (École Polytechnique Fédérale de Lausanne, EPFL). Visiting Professor, upon invitation by Prof. C. Ancey.

Spring 2013: *Scripps Institution of Oceanography (SIO)* (University of California San Diego, UCSD). Invited by Dr. L. Centurioni.

Spring 2014: *Laboratory of Environmental Hydraulics (LHE)* (École Polytechnique Fédérale de Lausanne, EPFL). Visiting Professor, upon invitation by Prof. C. Ancey.

Spring 2014: *Centro de Ciências Tecnológicas da Terra e do Mar* (Universidade do Vale do Itajaí). Invited by Prof. M. Polette.

Spring 2015: *Laboratory of Environmental Hydraulics (LHE)* (École Polytechnique Fédérale de Lausanne, EPFL). Visiting Professor, upon invitation by Prof. C. Ancey.

RESEARCH PROJECTS: ORGANIZATION AND PARTICIPATION

1990-1994 He participated in the E.U. research projects MAST-G6 Morphodynamics (contract N. 0035-C) and MAST-G8 Morphodynamics (contract N. MAS-20027) as member of the unit “Snamprogetti S.p.A”;

1997-1999 He participated in the O.N.R.-NICOP research project N. 00014-97-1-0791 as member of the unit “University of Bristol”;

1997-1998 He participated in the italian MURST research project PRIN’97 as member of the unit “University of Genova”;

1997-2000 He participated in the E.U. research project SASME (contract N. MAS-CT97-0081) as member of the unit “University of Bristol”;

1999-2001 He promoted the scientific agreements between: 1) Snamprogetti S.p.A. and the University of Genova for the study of the evolution of fields of sand waves and 2) the University of Ancona and the University of Genova for the development of nearshore circulation models;

2001-2003 He participated in the E.U. research project HUMOR (contract N. EVK-2000-22037) as member of the unit “University of Genova”;

2001-2003 He participated in the E.U. research project DELOS (contract N. EVK-2000-22038) as member of the unit “University of Roma Tre”;

2002-2003 He participated in the italian MIUR research project PRIN’02 as member of the unit “University of Trento”;

2005-2007 He was leader for the research project funded by the Italian Research Agency INSEAN (contract N. 798/PR) and aimed at the analysis of the manoeuvrability of amphibious vehicles within the well deck of LPD vessels;

2005-2008 He was leader for the European research project FLUBIO (contract N. MEST-CT-2005-020228) with which the European Union funds with 900000 Euro a Marie Curie Early Stage Training Site at the DIAM of the University of Genova on topics related with *Environmental Fluid Mechanics* and *Bio-Fluid Mechanics*;

2005-2008 He was leader of the Italian MIUR research project INTERLINK’05 (contract INTERLINK-II04C02L8E) involving research units at the University of Delaware (CACR), U.S.A. and at the University of Roma Tre (DSIC), Italy;

2005-2008 He was leader of the unit “Università Politecnica delle Marche” within the EU-INTAS Project (contract N. 06-1000013-9236), focused on the modeling of nearshore flows;

2011-2012 He was leader of the MorphSwash EU project (contract N. FP7-PEOPLE-2009-IEF-252374), focused on devising innovative modeling tools for the nearshore morphodynamics;

2013-2014 He was leader of the EsCoSed NICOP-ONR Project (contract N. N62909-13-1-N020), focused on the investigation and modeling of estuarine cohesive sediments;

2012-2015 He was leader of the “Università Politecnica delle Marche” unit within the EU EnviCOP Project (contract N. PIRSES-GA-2011-295162), focused on strengthening research partnerships between 7 international institutions (working in the field of environmentally friendly (soft) coastal protection methods).

2012-2015 He participated in the activities of the “Università Politecnica delle Marche” unit within the MIUR Flagship “RITMARE” Project. His main contributions are within the WP4.AZ3 - “Modellistica di supporto alle infrastrutture costiere e offshore” action.

2015-2016 He was leader of the research project funded by D'Appolonia S.p.A. (contract N. 13-1034-C3) aimed at the study of large-scale beach nourishments to be placed at defense of Italian Adriatic beaches.

2015-2016 He was leader of the UNIVPM unit within the “ACRI YITP 2015” project, funded by ACRI S.p.A. aimed at supporting the mobility of young researchers;

2017-2018 He was leader of the research project funded by the “Istituto Superiore per la Protezione e la Ricerca Ambientale - ISPRA” (contract Rep. n. 11/17/AD/AGP-GAR) for the construction of guidelines for the assessment of coastal inundation of Sardinian beaches.

2018 He was leader of the research project funded by the “Istituto Superiore per la Protezione e la Ricerca Ambientale - ISPRA” (contract Rep. n. 263/18) aimed at study of tsunami-related hazards along coastal areas.

2017-2019 He is leader of the MORSE NICOP-ONR Project (contract N. N62909-17-1-2148), focused on the investigation and modeling of sea-river interactions at river mouths.

2018-2019 He is leader of the research project funded by the “Parco Nazionale del Circeo” aimed at the classification of storms and evaluation of their impact on beaches.

2018-2020 He is leader of the DICEA research unit within the PON-PLACE Project (code N. ARS01-00891), focused on the conversion of offshore platforms for ecological and sustainable uses.

2019-2021 He is leader of the FUNBREAK MIUR-PRIN2017 Project (code N. 20172B7MY9), focused on the investigation of the fundamentals of breaking wave-induced boundary dynamics.

2020-2021 He is leader of the research project funded by the “Istituto Superiore per la Protezione e la Ricerca Ambientale - ISPRA” (contract Rep. n. 750/20) aimed at study of tsunami-related hazards along coastal areas of the South of Italy.

2021-2022 He is leader of the UNIVPM research unit within the “ADRIACLIM” Project - Plan of the Marche Region for climate change adaptation - Interreg V-A Italy-CroatiaCBC Program 2014-2020, 2019-21 and MITE/MATTM BLOG 2 Program .

2021-2022 He is leader of the consultancy project funded by “Gestiport-S.p.A.” (contract Rep. n. 466/2021) aimed at study hydro-morphodynamic changes induced by extension of the right bank of the Misa river.

2022 He is leader of the consultancy project funded by “Comune di Senigallia” (contract Rep. n. Rep. 22469/2022) aimed at strengthening the monitoring/alert system of the Municipalities against the Misa river floods.

2021-2023 He is Co-PI of the project titled “The evolution of the boundary between turbulent and irrotational flow in spilling breaking waves”, funded by the Royal Society of London (code n. IES\R2\202095).

2021-2023 He is leader of the UNIVPM research unit within the “Navi efficienti tramite l’Utilizzo di Soluzioni tecnologiche Innovative e low Carbon - NAUSICA” PNR Project (ARS01 00334).

2022-2023 He is leader of the consultancy project funded by “SAIPEM-S.p.A.” (contract Rep. n. 5000045440) aimed at updating and upgrading of software packages for applications of pipe-soil interaction and meteo-marine climate predictions.

2022-2024 He participates to the UNIVPM research unit within the “SMART4ENV” Horizon EU Project (HORIZON-WIDERA-2021-ACCESS-03, N.101079251).

2023-2024 He is PI of the MINELAB-SERDP project, focussed on monitoring and modeling of Unexploded Ordnances at Sea, funded by the USA Department of Defense through the Contract Award W912HQ23P0016.

2023-2024 He is leader of the Hydraulics unit for the “DecOPlat Phase 2 Decommissioning Offshore Platform and Structures” consultancy project funded by “ENI-S.p.A.” (contract Rep. n. 3500056941) aimed at designing and implementing a decision-making toolbox in support of finding the most suitable fate for dismissed offshore platforms.

2023-2024 He is leader of the consultancy project funded by the “Regione Marche, - Commissioner’s Structure for the flood emergency of 15 September 2022” (contract Rep. n. 1311/2023), aimed at supporting the Commissioner’s Structure with studies of measures for the mitigation of the flood risk by the Misa-Nevola river.

2023-2024 He is leader of the consultancy project funded by the “Engineering S.p.A.” (contract Rep. n. OE/406692), aimed at preliminary studies for the creation of a system numerical simulations of wave propagation at a local scale, starting from forcing conditions provided by models on a regional scale.

2023-2026 He participates in the “NonlinEar Phenomena in floaTing offshore wind tUrbiNEs” - PRIN 2022 project (Prot. 2022W7SKTL), aimed at the modeling of the dynamics of offshore wind turbines.

2023-2027 He is leader the UNIVPM research unit within the “SEDIMARE” Horizon Europe Framework Programme Project (HORIZON-MSCA-DN-2021, N.101072443), establishing an MSCA Doctoral Network on Sediment Transport and Morphodynamics in Marine and Coastal Waters with Engineering Solutions.

2024-2025 He is leader the “Mitigation and Adaptation in Resilient Coastal and estUarine integrated unitS MARCUS” Project (CUP D43C22003030002), in support of the “Multi-Risk sciEnce for resilienT commUnities undeR a changiNg climate - RETURN” PNRR Project (RETURN, N.PE0000005), aimed at the mitigation of the risks of flood due to river-sea interactions and coastal inundation.

2024-2028 He is leader the UNIVPM research unit within the “RESCUER” Horizon Europe Framework Programme Project (HORIZON-MSCA-DN-2022, N.101119437), establishing an MSCA Doctoral Network on forecasting and modeling of coastal, riverine, and urban flooding and associated water quality issues.

TUTORING (PHD)

He is or has been tutor/co-tutor of the doctoral theses of the following researchers:

Giorgio Bellotti, *Shoreline boundary conditions for water wave models*, XIV Cycle, University of Roma "La Sapienza". Currently Full Professor at the University of Roma Tre, Italy;

Riccardo Briganti, *Boussinesq modeling of breaking waves: improvement of turbulence description*, XVI Cycle, University of Roma Tre. Currently Associate Professor at the University of Nottingham, U.K.;

Alessandra Piattella, *On mixing in natural shallow flows*, II Cycle New Series, University of Ancona. Currently Area Manager/Senior Hydraulic Engineer at the engineering company Multiservizi S.p.A., Ancona, Italy;

Shubhra Misra, *The turbulent flow structure of quasi-steady spilling breakers*, University of Delaware, U.S.A. Currently Deputy Director - Climate Change Adaptation and Planning ODASD (Energy Resilience & Optimization) Office of Secretary of Defense United States Department of Defense (DoD), U.S.A.;

Matteo Antuono, *Shallow water solutions for nearshore dynamics*, XX Cycle, University of Genova. Currently Research Scientist at I.N.S.E.A.N., Rome, Italy;

Emanuele Terrile, *Vorticity dynamics of nearshore flows*, XX Cycle, University of Genova. Currently CEO of SeaSolutions, Genova, Italy;

Giovanna Grosso, *Finite volume modeling of coastal long waves*, XXI Cycle, University of Genova. Currently Senior Scientist at Silicon Austria Labs, Villach, Austria;

Silvia Falchetti, *Hydro-morphodynamics of the near-shoreline region: experimental and theoretical modeling*, XXI Cycle, University of Genova. Currently Oceanographic Scientific Researchers at the Centre for Maritime Research and Experimentation, La Spezia, Italy;

Matteo Mattioli, *Hydrodynamics and morphodynamics response for pipe-soil interactions*, IX Cycle New Series, Polytechnic University of Marche. Currently Head of Life and Field Services at the engineering company S.A.I.P.E.M - S.p.A., Venice, Italy;

Matteo Postacchini, *Numerical hydro-morphodynamic 2DH model for the shallow waters*, IX Cycle New Series, Polytechnic University of Marche. Currently Associate Professor at the Polytechnic University of Marche, Ancona, Italy;

Pasquale Contestabile, *Hydrodynamics and morphodynamics in the swash zone: HYDRALAB III large-scale experiments*, XXIV Cycle, University of Napoli, “Federico II”. Currently Associate Professor at the University of Campania, “Luigi Vanvitelli”, Aversa, Italy;

Gianluca Zitti, *Avalanche-induced impact water waves*, XIV Cycle New Series, Polytechnic University of Marche. Currently Assistant Professor at the Polytechnic University of Marche, Ancona, Italy.

Francesco Memmola, *Analysis and development of oceanographic models: reaching the swash zone*, XV Cycle New Series, Polytechnic University of Marche. Currently Assistant Professor at the Polytechnic University of Marche, Ancona, Italy.

Lorenzo Melito, *On the hydro-morphodynamics of river mouths: the role of waves*, XVI Cycle New Series, Polytechnic University of Marche. Currently Research Associate at the Polytechnic University of Marche, Ancona, Italy.

Giulia Antolloni, *Dynamics induced by steep waves at a vertical slender cylinder in deep waters: laboratory experiments*, XVII Cycle New Series, Polytechnic University of Marche. Currently Pipeline Engineer at RINA Consulting, Fano, Italy

Eleonora Perugini, *The application of video-monitoring data to understand coastal and estuarine processes*, XVII Cycle New Series, Polytechnic University of Marche. Currently Research Fellow at the Strathclyde University, Glasgow, Scotland.

Nikta Iravani, *Development of a Non-hydrostatic Numerical Model for Simulation of Wave Propagation in Surf zone*, University of Tehran, College of Engineering, School of Civil Engineering, Teheran, Iran. Currently Coastal Engineer at Royal Haskoning DHV, Sydney, Australia

Alí Pourzangbar, *Study of the influence of Bottom Boundary Layer (BBL) and Suspended Sediment Transport (SST) for the computation of the evolution of natural sand bars*, XVIII Cycle New Series, Polytechnic University of Marche. Currently Research Associate at Karlsruhe Institute of Technology, Karlsruhe, Germany.

Agnese Baldoni, *Observation and modeling of the estuarine and coastal hydro-morphodynamics: the Misa River case study*, XX Cycle New Series, Polytechnic University of Marche. Currently Research Associate at the Polytechnic University of Marche, Ancona, Italy.

Carola Colangeli, *Sediment transport processes in harbour settings: investigation of the effects induced by natural and anthropogenic forcing*, XXXVI Cycle, Polytechnic University of Marche. Currently Navalo Lieutenant, Italian Navy, Italy.

EDITORIAL AND REVIEWING ACTIVITIES

He is Associate Editor of the following international scientific journals:

- *Journal of Ocean Engineering and Marine Energy*, Springer Publishing.
- *Journal of Waterways Ports Coasts and Ocean Engineering*, A.S.C.E. Publisher.
- *Meccanica*, Springer Publishing.

and Member of the Editorial Board of:

- *Coastal Engineering*, Elsevier Publisher.
- *Journal of Hydrodynamics*, Elsevier Publisher.
- *Ocean Engineering*, Elsevier Publisher;
- *Water Waves*, Springer Publishing.

He collaborates, as Reviewer, with the following scientific journals:

- *Acta Mechanica*, Springer;
- *Advances in Civil Engineering*, Hindawi Publishing Corporation;
- *Applied Mathematical Modeling*, Elsevier Publisher;
- *Applied Ocean Research*, Elsevier Publisher;
- *Advances in Water Resources*, Elsevier Publisher;
- *Coastal Engineering*, Elsevier Publisher;
- *Coastal Engineering Journal*, World Scientific;
- *Computer and Fluids*, Elsevier Publisher;
- *Computers and Mathematics with Applications*, Elsevier Publisher;
- *Computer Physics Communications*, Elsevier Publisher;
- *Continental Shelf Research*, Elsevier Publisher;
- *Environmental Fluid Mechanics*, Springer;
- *Estuarine, Coastal and Shelf Science*, Elsevier Publisher;
- *Experiments in Fluids*, Springer;
- *Experimental Thermal and Fluid Science*, Elsevier Publisher;
- *European Journal of Mechanics-B Fluids*, Elsevier;
- *Geomorphology*, Elsevier Publisher;
- *Geophysical Research Letters*, John Wiley & Sons;
- *Heliyon Journal*, Elsevier Publisher;
- *Il Nuovo Cimento-B*, Italian Physical Society;
- *International Journal for Numerical Methods in Fluids*, John Wiley & Sons;
- *International Journal of Heat and Mass Transfer*, Elsevier Publisher;
- *International Journal of Multiphase Flow*, Elsevier Publisher;
- *Journal of Applied Meteorology*, American Meteorological Society;

- *Journal of Coastal Research*, Coastal Education & Research Foundation;
- *Journal of Computational and Applied Mathematics*, Elsevier Publisher;
- *Journal of Computational Physics*, Elsevier Publisher;
- *Journal of Environmental Engineering and Landscape Management*, Vilnius Tech Publisher;
- *Journal of Fluid Mechanics*, Cambridge University Press;
- *Journal of Engineering Mathematics*, Springer;
- *Journal of Fluids Engineering*, A.S.M.E. Publisher;
- *Journal of Fluids and Structures*, Elsevier Publisher;
- *Journal of Geophysical Research-Earth Surface*, American Geophysical Union;
- *Journal of Geophysical Research-Oceans*, American Geophysical Union;
- *Journal of Hydraulic Engineering*, A.S.C.E. Publisher;
- *Journal of Hydraulic Research*, I.A.H.R. Publisher;
- *Journal of Ocean Engineering and Marine Energy*, Springer;
- *Journal of Waterways Ports Coasts and Ocean Engineering*, A.S.C.E. Publisher;
- *Journal Of Zhejiang University-Science A*, Zhejiang University;
- *KSCE Journal of Civil Engineering*, Springer;
- *Mathematical Problems in Engineering*, Hindawi Publishing Corporation;
- *Mathematical Reviews*, American Mathematical Society;
- *Measurement Science and Technology*, I.O.P. Publisher;
- *Meccanica*, Springer;
- *Modeling and Simulation in Engineering*, Hindawi Publishing Corporation;
- *Natural Hazards and Earth System Sciences*, American-European Geophysical Union;
- *Nonlinear Processes in Geophysics*, American-European Geophysical Union;
- *Ocean Engineering*, Elsevier Publisher;
- *Ocean Modelling*, Elsevier Publisher;
- *Ocean Science*, American-European Geophysical Union;
- *Optics and Lasers in Engineering*, Elsevier Publisher;
- *Physics of Fluids*, American Institute of Physics;
- *Physics Letters A*, Elsevier Publisher;
- *Pure and Applied Geophysics (PAGEOPH)*, Springer;
- *Scientia Iranica*, Elsevier Publisher;
- *Thalassas: An International Journal of Marine Sciences*, Springer;
- *Water Resources Research*, American Geophysical Union;
- *Water Science and Technology*, IWA Publishing;
- *Wave Motion*, Elsevier Publisher;
- *Wind Energy*, John Wiley & Sons.

He also collaborates as Reviewer with the following Editors:

- *John Wiley & Sons*;
- *World Scientific-Imperial College Publisher*;

with the following Research Agencies:

- *Italian Ministry for Education, University and Research (MIUR)*, Italy;
- *Regione Friuli Venezia-Giulia*, Italy;
- *Croatian Science Foundation*, Croatia;
- *Dutch Research Council for Earth and Life Sciences (NWO-ALW)*, The Netherlands;
- *National Science Foundation (NSF)*, U.S.A.;
- *French National Research Agency (ANR)*, France;
- *Agencia Nacional de Evaluación y Prospectiva (ANEP)*, Spain;
- *Research Promotion Foundation (RPF)*, Cyprus;
- *European Commission*, European Union.

and Universities:

- *Shanghai JiaoTong University*, China;
- *Université Fédérale de Toulouse*, France;
- *Indian Institute of Engineering Science and Technology, Shibpur Howrah*, India;
- *Politecnico di Torino*, Italy;
- *Università di Roma “La Sapienza”*, Italy;
- *Università di Trento*, Italy;
- *Università di Trieste*, Italy;
- *University of Oslo*, Norway;
- *University of Hawaii at Manoa*, U.S.A.;
- *University of Plymouth*, U.K.

ORGANIZATION OF SYMPOSIA AND CONFERENCES

Starting in 2014 he is member of the Executive Committee of the International Conferences on Hydrodynamics (ICHHD).

6-10 September 1999. He was secretary of the IAHR Symposium on *River, Coastal and Estuarine Morphodynamics*. University of Genova, Genova, Italy;

October 1999. He was member of the Organizing Committee of the *International Workshop on Surf Zone Turbulence*. Cornell University, U.S.A.

12-15 September 2000. He was member of the Scientific Committee of the *XXVII Convegno di Idraulica e Costruzioni Idrauliche* University of Genova, Genova, Italy.

17-20 September 2000. He was Co-Chairman of the Euromech Colloquium entitled *Interaction of strong turbulence with free surfaces (EUROMECH N. 416)*. University of Genova, Genova, Italy.

27 May 2002. He was Co-Chairman of Minisymposium entitled *Breaking waves in shallow water and interactions with beaches and coastal structures*, SIMAI'02 Conference, Chia Laguna, Cagliari, Italy.

8-11 June 2008. He was Co-Chairman of the Euromech Colloquium entitled *Mixing of coastal, estuarine and riverine shallow flows (EUROMECH N. 501)*. Polytechnic University of Marche, Ancona, Italy.

14-17 September 2009. He was member of the Organizing Committee of the *XIX Congresso AIMETA*, Ancona, Italy.

26-28 April 2011. He was member of the Scientific Committee of the Symposium entitled *Two-phase modelling for sediment dynamics (THESIS-2011)*, Chatou, Paris, France.

12-15 September 2011. He was member of the Scientific Committee of the *XX Congresso AIMETA*, Bologna, Italy.

10-12 June 2013. He was member of the Scientific Committee of the Symposium entitled *Two-phase modelling for sediment dynamics (THESIS-2013)*, Chatou, Paris, France.

8-10 September 2014. He was member of the Scientific Committee of the *XXXIV Convegno di Idraulica e Costruzioni Idrauliche* Polytechnic of Bari, Bari, Italy.

22-27 May 2016. He was member of the Organizing Committee of the *International Conference on Multiphase Flow 2016 (ICMF-2016)*, Firenze, Italy.

12-14 September 2018. He was member of the Organizing Committee of the *XXXVI Convegno di Idraulica e Costruzioni Idrauliche* Università Politecnica delle Marche, Ancona, Italy.

25-29 May 2020. He was member of the Scientific Committee of *CoastLab2020*, Zhoushan, China.

23-28 September 2020. He was Co-convener of the Thematic session on *FM17 Waves in Fluids* of the 25th International Congress of Theoretical and Applied Mechanics, Politecnico di Milano, Milano, Italy.

AFFILIATIONS

He is affiliated to the CNR-INSEAN as Associate Researcher.

He is or has been member of the following scientific organizations:

- *European Geophysical Society (EGS)*;
- *American Geophysical Union (AGU)*;
- *International Association for Hydraulic Research (IAHR)*;
- *Marie Curie Fellowship Association (MCFA)*.

SERVICE TO THE COMMUNITY

- Member of the *Blue Italian Growth Scientific Committee*;
- Scientific Advisor for the Italian Civil Protection *Commissione Grandi Rischi - Tsunami Branch*.

AWARDS AND RECOGNITIONS

- *Marie Curie Fellowship* granted by the European Community for research in the years 1993-1996.

PUBLICATIONS AND SYNTHETIC INDICATORS

He is author/co-author of over 150 Scopus-listed journal papers (the list of which is available upon request), his works have received over 4000 citations and his H-index is 34 (Scopus).

Listed among the “World’s Top 2% Scientists”.

Maurizio Brocchini