

PERSONAL INFORMATION

Giovanni Besio



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 Sex Male | Date of birth 18/06/1976 | Nationality Italian

WORK EXPERIENCE

From October 2024 to Today

**Full Professor in Coastal and Harbour Engineering**

Polytechnic School, University of Genoa, Italy, [www.politecnica.unige.it](http://www.politecnica.unige.it)

- Full Professor of “Maritime Engineering”, “Coastal Structures” and “Harbour Engineering” for the Civil and Environmental Engineering degree (BSc and MSc careers)

**Business or sector** Research and education

From February 2015 to September 2024

**Associate Professor in Coastal and Harbour Engineering**

Polytechnic School, University of Genoa, Italy, [www.politecnica.unige.it](http://www.politecnica.unige.it)

- Full Professor of “Maritime Engineering”, “Coastal Structures” and “Harbour Engineering” for the Civil and Environmental Engineering degree (BSc and MSc careers)

**Business or sector** Research and education

From November 2005 to February 2015

**Assistant Professor in Coastal Engineering**

Polytechnic School, University of Genoa, Italy, [www.politecnica.unige.it](http://www.politecnica.unige.it)

- Full Professor of “Maritime Engineering”, “Coastal Structures” and “Environmental Fluid Mechanics” for the Civil and Environmental Engineering degree (BSc and MSc careers)

**Business or sector** Research and education

From October 2004 to November 2005

**Post Doc – Research Fellow**

Centro Andaluz de Medio Ambiente (CEAM), Granada, Spain, <http://www.iista.es/>

- Junior Scientist in Coastal Engineering and Coastal Morphodynamics

**Business or sector** Research

From January 2004 to September 2004

**Research Fellow**

DIAM (now DICCA), University of Genoa, Italy

- Researcher in Environmental Fluid Mechanics

**Business or sector** Research

From January 2001 to December 2003

**PhD Grant**

DIAM (now DICCA), University of Genoa, Italy

- PhD in Environmental Fluid Mechanics

**Business or sector** Research

From December 1999 to May 2000

**Junior Engineer**

STI, Studio Tecnico di Ingegneria, Genova, Italy

- Junior Engineer for Civil and Hydraulic works

**Business or sector** Civil Engineering Consultancy

EDUCATION AND TRAINING

- From January 2001 to December 2003 **PhD in Environmental Fluid Mechanics** Level 8  
 DIAM (now DICCA), University of Genoa, Italy  
 ▪ Fluid Mechanics, Morphodynamics, Turbulence
- From September 1994 to November 1999 **MSc in Civil Engineering with Hydraulics** Level 7  
 University of Genoa, Italy  
 ▪ Civil Engineering, Fluvial and Coastal Hydraulics

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Spanish	C1	C1	C1	C1	C1
French	B2	B1	A1	A2	A1

Communication skills Good communication skills developed either teaching different courses and giving talks at international conferences

Organisational / managerial skills Leadership and tutoring (PhD and Master students)

Job-related skills Innovation and development for basic research and applied research (knowledge transfer to industry)

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Proficient	Proficient	Proficient

Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

Skills in programming languages (Fortran, Matlab, Python, shell scripting), GIS tools (QGIS, Grass, ArcGIS)

Other skills Manual abilities for laboratory works (steel and wood carpentry, PVC and similar materials handling)

Driving licence A and B

ADDITIONAL INFORMATION

Referee Activity

Editor for Advances in Sea State Modelling and Climate Change Impacts, Frontiers  
 Review Editor for Coastal and Offshore Engineering section of Frontiers in Built Environment  
 Review Editor for Coastal Ocean Processes section of Frontiers in Marine Science  
 Guest Associate Editor for Applied Ocean Research  
 Guest Associate Editor for Physical Oceanography section of Frontiers  
 Guest Associate Editor for Ocean Engineering  
 Guest Associate Editor for Ocean Modelling  
 Editorial Board Member for Journal of Marine Science and Engineering, MDPI

ANVUR – VQR 2010-2014  
 Engineering and Physical Sciences Research Council (EPSRC - UK)  
 Future in Research (Regione Puglia)  
 MIUR – PRIN Projects  
 MSCA Bienvenue  
 National Science Foundation (NSF)



Advances in Water Resources  
 Applied Energy  
 Atmosphere  
 Coastal Engineering  
 Continental Shelf Research  
 Earth-Science Review  
 Earth Surface Processes and Landforms  
 Ecological Indicators  
 Energies  
 Energy  
 Engineering Applications of Artificial Intelligence  
 Environment International  
 Environment, Development and Sustainability  
 Environmental Modelling and Software  
 Estuarine, Coastal and Shelf Science  
 European Journal of Mechanics B/Fluid  
 Frontiers in Marine Science  
 Geophysical Research Letters  
 IAHR - International Association of Hydro-Environment Engineering and Research  
 International Journal of Marine Energy  
 Journal of Cleaner Production  
 Journal of Fluid Mechanics  
 Journal of Geophysical Research  
 Journal of Marine Science and Engineering  
 Journal of Waterway, Port, Coastal and Ocean Engineering  
 Meccanica  
 Natural Hazard and Earth System Science  
 Natural Resource Research  
 Ocean Dynamics  
 Ocean Engineering  
 Ocean Modelling  
 Physics of Fluids  
 Progress in Oceanography  
 Regional Environmental Change  
 Science of the Total Environment  
 Scientific Reports  
 Water Resources Research  
 Water

**Affiliations** American Geophysical Union (AGU)  
European Mechanic Society (EUROMECH)  
Permanent International Association of Navigation Congresses (PIANC)  
Associazione Ingegneria Offshore e Marina (AIOM)

**Institutional Activities**

Scientific Coordinator for the Environmental Fluid Mechanics Laboratory of Dep. of Civil, Chemical and Environmental Engng, DICCA, University of Genoa, 2025 - ongoing

Member of the Scientific Committee of the Centro del Mare, University of Genoa, 2019 – ongoing

Coordinator of the PhD Curriculum in Engineering for Marine and Coastal Environments belonging to the PhD in Sea Science and Technology, University of Genoa, 2019 – ongoing

Member of the Committee for the PhD in Civil, Chemical and Environmental Engng, University of Genoa, 2005-2018

Member of the Teaching Committee for the MSc in Civil Engineering, University of Genoa, 2023-ongoing

Member of the AquaClew Project (ERA-NET ERA4CS) External Expert Committee - 2020

Member of the Committee for the draft of ROM1.1 guideline (Ministry of Development, Spain, 2018)

Expert member for fluvial and coastal hydraulics in the Regional Technical Committee for the Environmental Management (Regione Liguria, 2014-2017)

Committee Member for Public Works Tendering processes for Spezia and Genoa Harbour (Quay Walls Design, Marinas Design, Geomatic Surveys, Road Design Services, Project Management of Harbor Works; Shipyard Works)

Technical Consultant for the Genoa Court (Harbour Planning and Safety, Coastal Structures Damages, 2016-2021)

Technical Consultant for TAR Liguria (Coastal Zone Management, 2015)

Technical Consultant for the Public Waters Court of Rome (River Engineering and Managing, 2007)

Reference Person for Research Joint Program UniGe-Regione Liguria, 2016-ongoing

Member of the PIANC-Universities working group, 2017-today

Referee for the PhD Degrees:

- School of Civil and Environmental Engineering, University of New South Wales, Australia
- Ocean Science Institute, Aix-Marseille Université, France
- Civil Engineering, University of Nottingham, United Kingdom
- Geophysics, University of Auckland, New Zealand
- Department of Infrastructure Engineering, University of Melbourne, Australia
- Ingegneria de los Fluidos Aplicada, Universidad de la Republica, Montevideo, Uruguay
- Territorio, Infraestructuras y Medio Ambiente, Universidad de Castilla la Mancha, Spain
- Civil Engineering, Universidad de Granada, Spain
- Escuela de Doctorado Universidad de Cantabria, Spain
- Earth Science, University of Pisa, Italy
- Environmental and Building Risk and Development, Environmental and Natural Resources, Polytechnic of Bari, Italy
- Civil and Environmental Engineering, University of Florence, Italy
- Fenomeni e rischi ambientali, University Parthenope, Naples, Italy
- Chemical, Environmental, Biomedical, Hydraulic and Materials Engineering, University of Palermo, Italy
- Dottorato di Ricerca in Ingegneria Civile Ambientale e della Sicurezza, University of Messina, Italy

Teaching  
Master and PhD Courses

2025	Class on “Climate-driven future wave projections in the Mediterranean” at the Summer School “Climate Change in coastal areas: knowledge, resilience, adaptation”, Cà Foscari University, Venice
2010/12/13/14/21/23	Classes on “Mixing Processes in Fluids” for the PhD program in Civil, Chemical and Environmental Engineering and in Marine Science and Technologies, University of Genoa, Genoa, Italy
2019	Classes on “Wave Modelling” for the IV International Summer School on Dynamics of Estuarine and Nearshore Systems, Granada, Spain
2018	Classes on “Wave Energy Converter Design” for the International Workshop in “Offshore Renewable and Aquaculture” ESITC Caen, France
2014, 2015	Classes on “Forecast models for ocean waves” for the “FORTEMARE – System Engineering for Maritime Technologies”, DLTM, MIUR & Regione Liguria, and DITEN, University of Genoa, Italy
2010/12/13/14	Classes on “Perturbation Methods” for the Doctorate in Fluid Mechanics and Environmental Processes, University of Genoa, Genoa, Italy
June 2012	Classes on “Submarine Dunes” at the Summer School “Morphological instabilities in natural systems”, Institut de Physique de Rennes, Université de Rennes 1, Rennes, France
November 2011	Classes on “Hidrodinamica zona de rompientes” for the Curso Avanzado de Ingeniería de Costas y Puertos, Colegio de Ingenieros de Andalucía, Sevilla, Spain
2009, 2017	Classes on “Harbour Engineering” for the Master in Marine Geomatics, II Ed., University of Genoa and Istituto Idrografico della Marina
June 2009	Classes for the course “Fluid Mechanics” for the Doctorate in Fluid Mechanics and Environmental Processes, University of Genoa, Genoa, Italy
2007/2008/2010	Classes on “Wave averaged models” for the course “Sea Waves” for the Doctorate in Water, Material and Earth Engineering for Environment, Polytechnic University of Marche, Ancona, Italy
June 2007	Supervisor for the Summer School “Hydro and Morphodynamics of Coastal Seas”, Motril, Spain. Organized by Utrecht University, Universidad de Granada and Università di Genova.
Apr – May 2005	Classes on “Coastal Circulation” and “Analysis of Coastal Processes” within the master program “Sistemazione Idrogeologica e Riqualficazione Ambientale” organized by Regione Liguria.
May 2004	Practical lessons for the course “Elementi di base dell'idraulica applicata allo studio dei corsi d'acqua” carried out for the La Spezia Province by the Department of Environmental Engineering, University of Genoa, Genoa, Italy

Teaching  
Degree Courses

A.A. 2023/24-24/25	Professor for “Water and Wind for Clean Energy” – MSc Environmental Engineering - University of Genoa
A.A. 2018/19-24/25	Full professor for “Coastal Structures and Shore Protection”, Civil Engineering – University of Genoa
A.A. 2016/17-24/25	Full professor for “Harbour Engineering”, Civil Engineering – University of Genoa
A.A. 2012/13-24/25	Full professor for “Coastal Engineering”, Civil Engineering – University of Genoa
A.A. 2018/19-22/23	Professor for “Renewable Energy Production”, Environmental Engineering – University of Genoa
A.A. 2012/13-17/18	Full professor for “Maritime Engineering”, Civil Engineering – University of Genoa
A.A. 2010/11-11/12	Full professor for “Environmental Hydraulics”, Civil Engineering – University of Genoa
A.A. 2011/12	Assistant professor for “Coastal Engineering”, Civil Engineering – University of Genoa
A.A. 2010/11	Assistant professor for “Coastal Engineering”, Civil Engineering – University of Genoa
A.A. 2009/10	Assistant professor for “Maritime Hydraulics”, Civil Engineering – University of Genoa
A.A. 2009/10	Assistant professor for “Hydraulics I”, Civil Engineering – University of Genoa
A.A. 2008/09	Assistant professor for “Port Engineering” and “Coastal Engineering”, Civil Engineering – University of Genoa
A.A. 2007/08, 06/07	Full professor for “Fluid Mechanics I”, Mechanical Engineering – University of Genoa - Polo di La Spezia
A.A. 01/02 – 08/09	Assistant professor for “Hydrodynamics I” for the Naval Architecture and Marine Engineering Degree - University of Genoa

Teaching  
PhD Students

2011-2015	Sonia Angiolani (actual position: high school teacher)
2012-2016	Lorenzo Mentaschi (actual position: RTD-B GEO/12 UniBO)
2013 – 2017	Francesco Enrile (actual position: engineer at Acquadotti Loano)
2016 – 2020	Francesco De Leo (actual position: RTD-A ICAR/02 UniGE)
2018 – 2022	Giulia Cremonini (actual position: Research Officer at TICASS)
2019 – 2023	Stefania Magrì (actual position: officer at ARPAL)
2020 – 2024	Manuel Corrales Gonzales (actual position: Post Doc at PoliMI)
2022 – ongoing	Filippo Giaroli
2022 – ongoing	Mattia Scovenna
2023 – ongoing	Beatrice Maddalena Scotto (funded by ETT)
2023 – ongoing	Vallabh Arambure
2023 – ongoing	Federico Baronetti
2023 – ongoing	Brunella Guida (funded by ENEA)
2024 – ongoing	Giovanni Salomone (funded by Marina Militare)
2024 – ongoing	Gael Anastas

Teaching	2013 - 2015	Ludovica Sartini (actual position: Metocean division at RINA)
Post Doc Students	2013 - 2015	Saeed Hariri (actual position: researcher at Leibniz-Institut für Ostseeforschung Warnemünde)
	2018 - 2020	Francesco Enrile (actual position: engineer at Acquedotti Loano)
	2018 – 2023	Francesco Ferrari (actual position: RTD-A Uni Genova)
	2020 – 2023	Andrea Lira Loarca (actual position: RTD-A Uni Genova)
	2020 – 2023	Mohamad Daliri (actual position researcher at NIOZ)
	2020 – 2022	Alejandro Caceres (actual position: Researcher Uni Toulon)
	2021 – 2022	Francesco De Leo (actual position: RTD-A Uni Genova)
	2022 – 2023	Paula Nunez Perez (Visiting form IH Cantabria - funded by Margarita Salas Grant)
	2022 – 2022	Emiliano Gorr Pozzi (Visiting from Universidad Baja California)
	2023	Tim Tooney (Visiting from IMEDEA, Universidad de las Baleares)
	2023 – 2023	Marta Aragon (Visiting from ETSICCP, Universidad de Granada – Visitng during the PhD)
	2023 – 2024	Manuel Corrales Gonzales
	2023 – ongoing	Danilo Lisboa
Teaching Internships	2022	Amaury Zach, Rose Beranger – University of Toulon
	2023	Lisa Fontanelle, Justine Louis, Paul Khederchah– University of Toulon
	2024	Thomas Zammit
	2025	Arthur Chan Lock, Bruno De Solages, Noé Fabre, Kyllian Lafon, Andy Pineau – University of Toulon

- Invited Seminars**
- "Appetizers from the future: exposure and vulnerability of the coasts" ESIC's Seminars, UNESCO Chair in Engineering for Human and Sustainable Development, Trento University, 28 March 2024
  - "L'utilizzo della modellistica meteo-marina per lo studio della risorsa" RSE Academy – energia Elettrica dal Mare, 15 December 2021
  - "Ocean Renewable Energy Assessment and Future Projections: approach and application in the Mediterranean Sea" IIWER Webinar #4, <https://www.youtube.com/watch?v=8gSFLoEjz28>
  - "Wave Modeling in the Mediterranean Sea: hindcast, forecast and climate projection for engineering applications" REMTECHExpo, Ferrara, Italy, September 2019
  - "Wave modeling and its applications" Universidad de La Republica, Montevideo, Uruguay, July 2018
  - "Modellistica meteo-marina: lo stato dell'arte per il bacino del Mediterraneo" Workshop La simulazione ambientale in ambito marino, ATENA, May 2017
  - "Stima del potenziale energetico del moto ondoso all'interno del bacino del Mediterraneo" Workshop Energia dal Mare, Onde e Correnti, ATENA, September 2016
  - "Modellistica di reanalisi per la stima degli eventi estremi" Studi di Aggiornamento sull'Ingegneria Off-Shore e Marina AIOM, Salerno, October 2016
  - "Stima del potenziale energetico del moto ondoso all'interno del bacino del Mediterraneo" ATENA Meeting, La Spezia, September 2016
  - "Numerical Modelling for Environmental needs @ UniGe" ARC Meeting, Toulon, France, April 2016
  - "La modellistica previsionale del moto ondoso ai fini dell'ingegneria offshore e costiera" Studi di Aggiornamento sull'Ingegneria Off-Shore e Marina AIOM, Palermo, November 2014
  - "Sea-weather modeling and engineering applications" CoastEsonda, Ferrara, September 2014
  - "Operational high resolution meteo marine modelling over the Mediterranean area: tailoring WWIII model for the Mediterranean basin and development of prompt coastal risk index" DeSRAAP Workshop, NATO-CMRE, La Spezia, July 2014
  - "Strutture Lagrangiane Coerenti e barriere al trasporto: applicazione al Golfo di Trieste" Studi di Aggiornamento sull'Ingegneria Off-Shore e Marina AIOM, Bologna, November 2013
  - "Lagrangian mixing and LCS as barrier to transport in compound channels" CNR-ISMAR, U.O. Pozzuolo di Lerici (SP), Italy, January 2013
  - "Wetlands, fragile ecosystems at risk. The case of Venice lagoon" GCCRP, Griffith University, Queensland, Australia, November 2012
  - "Wetlands, fragile ecosystems at risk. The case of Venice lagoon" GCCRP, Southern Cross University, Lismore New South Wales, Australia, November 2012
  - "Lagrangian Coherent Structures as barrier to transport" IH Cantabria, Universidad de Cantabria, Santander, Spain, November 2011
  - "Modelli per l'analisi della qualità delle acque costiere e dei bacini" Studi di Aggiornamento sull'Ingegneria Off-Shore e Marina AIOM, Lecce, Italy, July 2011
  - "Tidal generated Sand Waves" GIOC, Universidad de Cantabria, Santander, Spain, June 2005
- Education**
- 2004: PhD grant at the University of Genoa, "Fluodynamics and Environmental Engineering Processes". PhD Thesis title: "Modelling of tidally generated large scale bedforms"
  - 1999: 18/11/1999 *Laurea* - Master degree in Civil Engineering in Hydraulics at the University of Genoa. Thesis: "River bifurcation stability: theoretical analysis and experimental observations". Score: 110 cum laude/110
  - 1994: Classical high school degree at the C. Columbus Liceum, Genoa

**Post Graduate Courses**

- November 2014: *"Time-frequency analysis: a glance beyond Fourier region"* Prof. L. Carassale - DICCA, Università di Genova.
- November 2009: *"Non-linear dynamical systems"* Prof. M. Storace - DIBE, University of Genoa.
- February 2009: *"Advanced numerical methods for hyperbolic equations and applications"* Prof. E. Toro. Organizzato dall'Università di Trento.
- October 2007: *"Communication Skills Training Workshop"* - Education Training Ltd (University of Edinburgh). Marie Curie EST Centre – DICAT Univ. of Genoa.
- July 2003: *"Hydro and Morphodynamics of coastal seas"* – Renesse, Netherlands. Organized by Utrecht University and Universitat Politècnica de Catalunya.
- Apr - Jun 2003: *"Problematiche della cooperazione internazionale e le progettualità applicabili"* organized by Ingegneria Senza Frontiere - Genova.
- October 2002: *"Water Waves for Engineers"* by Prof. M. Brocchini (University of Genoa) and Dr. M. Landrini (INSEAN).
- May 2002: *"Le tecnologie appropriate per la cooperazione e lo sviluppo sostenibile: il ruolo dell'università"* organized by CETAMB (Brescia).
- January 2000: *"La progettazione strutturale con gli Eurocodici"*.

**Projects**

YEAR	TITLE	PARTNER
2023	Future navigation condition in the Med and North Sea	Weather, Water and Sand
2023	Water intake and outlet for FSRU unit 2 in Ravenna	TECHINT
2023	Water intake and outlet for FSRU unit in Mar Ligure	TECHFEM
2023	Water intake and outlet for FSRU unit as built in Piombino	T.EN
2023	Water intake and outlet for FSRU unit in Ravenna layout single	TECHFEM
2023	Brine dispersion simulations	Milano Multiphysics
2023	Water intake and outlet for FSRU unit in Vado, integration for Regione	TECHFEM
2022	Water intake and outlet for FSRU unit in Piombino	DISTAV/SNAM
2022	Water intake and outlet for FSRU unit in Porto-Torres	DISTAV/SNAM
2022	Wave climate characterization in Red Sea	Longitude
2022	Water intake and outlet for FSRU unit Offshore Ravenna	TECHINT
2022	Water intake and outlet for FSRU unit in Porto Torres - Phase 2	RINA
2022	Water intake and outlet for FSRU unit in Piombino New Darsena	TECHNIP
2022	Water intake and outlet for FSRU unit in Piombino OLT2	SAIPEM
2022	Water intake and outlet for FSRU unit in Ravenna Breakwater	TECHINT
2022	Sediment dumping and dispersion for Panigaglia	SHELTER
2022	Sediment dumping and dispersion for Porto Vesme + correction	SHELTER
2022	Wave climate characterization in Red Sea	Longitude
2022	Wave climate characterization offshore Imperia coast	Geoscape
2022	Porto Palermo natural capital evaluation	CELIM
2021	Wave climate characterization offshore Imperia coast	HS Marine
2021	Wave climate characterization offshore Sicily	Technital
2021	Harbour oscillation analysis	Cala del Forte
2021	Wave climate for Italy	Polimi
2021	Wave Extreme Value Analysis and Run-Up estimation for Med Sea Coast	Plan Bleu
2021	Dispersion of fine sediment due to piling activities	DISTAV/SNAM
2021	Wave hindcast data offshore Ventimiglia harbour	Cala del Forte
2021	Wave climate characterization offshore Cyprus	DNV GL Italy
2021	Support activity for shore protection design	Comune di Alassio

Projects

YEAR	TITLE	PARTNER
2021	Analysis of breakwater projects for Baia del Silenzio	Comune di Sestri Levante
2021	Narta Lagoon monitoring and analysis	CELIM
2021	Water intake and outlet for FSRU unit in Porto Vesme	DISTAV/SNAM
2021	Wave climate characterization offshore Imperia coast	Geoscape
2021	Wave climate characterization offshore Genoa Harbour	Geoquip
2021	Wave climate characterization offshore Genoa Harbour	Technital
2021	Water intake and outlet for FSRU unit in Porto Torres	DISTAV/SNAM
2021	Dispersion of fine sediment due to piling activities - ph2	DISTAV/SNAM
2021	SINBAD2 IPR	PmTen
2021	SINBAD2 IPR	Xedum
2020	Wave climate characterization in the Suez Channel	Longitude
2020	Wave climate characterization offshore Imperia coast	HS Marine
2020	Wave climate characterization offshore Alassio coast	ATI Gaggero
2020	Wave climate characterization offshore Termoli coast	Ing. Russo
2020	Containers' drift in the Southern Pacific Ocean	Longitude
2020	Wave Hazard Index	ARPAL
2020	Wave climate characterization in the Suez Channel	Longitude
2019	Meteocean condition for Palermo coast	AdSPMSO
2019	Meteocean condition for Tigullio Gulf	AquaTecno
2019	Wave climate characterization offshore of Livorno harbor	HS Marine
2019	Wave climate characterization offshore of Fiumicino	RINA
2019	SINBAD IPR	Xedum
2019	SINBAD IPR	PmTen
2019	Wave climate characterization offshore La Spezia harbour	Modimar
2019	Wave climate characterization offshore Savona	APM Terminal
2019	Wave climate characterization offshore Golfo Aranci	Società Generali Appalti
2019	Wave climate characterization for Red Sea	RINA
2019	Wave data for UniCal project	UniCal
2019	Wave climate characterization for Suez Channel	RINA
2019	Wave climate characterization offshore of Cetraro	HS Marine
2019	Study of coastal circulation and folding in Baia del Silenzio	Comune di Sestri Levante
2019	Wave climate characterization offshore Naples harbour	Modimar
2019	Wave spectral climate characterization offshore of Malta Coast	RINA
2019	Wave climate offshore the coast of Sicilia	Studio Longanesi
2019	Wave climate offshore the coast of Porto Empedocle	HS-Marine
2019	Wave climate offshore the coast of Lazio	La Sapienza
2019	Wave climate offshore the coast of Andora	HS Marine
2019	EVA Analysis worldwide	Milano Multiphysics
2018	Meteocean condition for Piombino harbour	CMC
2018	Wave climate characterization offshore of Livorno harbor	Modimar
2018	Meteocean conditions in the Canale di Corsica	Interprogetti
2018	Meteocean condition for Algerian Coast	Technital
2018	Meteocean condition for Golfo di Follonica	AdSPMTS

Projects

YEAR	TITLE	PARTNER
2018	Wave climate characterization in the Malta Channel	PhO
2017	Morphodynamics of Romanian coast	Dinamica
2017	Wave Tank Experiment for Absorbing Caissons	RINA
2017	Wave Extreme Value Analysis and Run-Up estimation for RAMOGE area	Plan Bleu
2017	Integrazione parere Pro-Veritate	Studio Munari
2017	Wave climate characterization offshore of Civitavecchia harbor	Modimar
2017	Wave climate characterization offshore of Ionic Coast of Sicily harbor	CADA-Modimar
2017	Wave climate characterization offshore of Genoa harbor	D'Apollonia
2017	Wave climate characterization offshore of Pescara harbor	ARAP Abruzzo
2017	Wave climate characterization offshore of Eolie islands	H.S. Marine
2017	Wave climate characterization offshore of Abruzzo Coast	Regione Abruzzo
2016	Wave climate characterization offshore of Alexandria Egypt	NMDC Abu-Dhabi
2016	Wave climate characterization offshore of Duqm	NMDC Abu-Dhabi
2016	Wave climate characterization offshore of Berbera]	NMDC Abu-Dhabi
2016	Wave climate analysis in the Gulf of La Spezia	AP-Spezia
2016	Parere Pro Veritate water quality Vado	Studio Munari
2016	Wave climate characterization offshore of Civitavecchia Harbour	Prof. Ruol
2015	Wave climate characterization offshore of Eritrea coast	NMDC Abu-Dhabi
2015	Wave climate characterization offshore of Montenegro coast	Hydrosoil s.r.l.
2015	Wave climate characterization offshore of Messina coast	COEDMAR
2014	Wave climate characterization offshore of Albania coast	Piacentini
2014	Fast Ferry wave generation and propagation on Isola d'Elba coast	Corsica Ferries
2013	Offshore Mar Ligure wave climate	Studio Legale Farina
2012	Study of the effects of a thermal plume from an FSRU Unit	DEAM
2012	Operational wave forecasting in the Ligurian Sea	ARPAL
2012	Physical modelling of Vernazzola beach profile	Comune di Genova
2011	Physical modelling of OWCM performances	Risorse Ambiente
2011	Physical modelling for risk analysis of asbestos release during slurry dumping	SPEA

Awards

July 2018: Visiting Grant, IMFIA, Universidad de La Republica, Montevideo, Uruguay  
 December 2014: Trasporti & Cultura Award (Sec. A) for the book "Ingegneria e Paesaggio. Un progetto per le valli e per le coste"  
 October 2012: GCCRP visiting fellow, Griffith University, Australia  
 September 2011: Best Presentation Award, RCEM Conference, Beijing, China  
 June 2004: CARIGE grant for research activities

Research Funding

TITLE	FINANCED BY	PERIOD	ROLE
Towards an early warning system on coastal hazards for the Uruguayan Coast	Agencia Nacional de Investigacion y Innovacion	2023-2025	Collaborator

Research  
Funding

TITLE	FINANCED BY	PERIOD	ROLE
Atlante del Mare	UE 508/2020 FEAMP 2014_2020	2023	Collaborator
RAISE - Robotics and AI for Socio-economic Empowerment	MUR	2023-2025	Spoke-Project Coordinator
RETURN - multi-Risk sciEnce for resilienT commUnities undeR a changiNg climate	MUR	2023-2025	Spoke-WP Coordinator
PROMPT - PReparedness for Operational Monitoring and Prediction of contaminant Transport in the Sea	UCPM-2022-PP	2023-2024	P.I.
SPLASH & CO – Stop alle plastiche in H2O ai tempi del COVID	Interreg - Marittimo European Union	2022-2027	UniGE Coord
ISYPORT - Sistema integrato per la mitigazione dei rischi della navigazione in aree portuali	Interreg - Marittimo European Union	2022-2023	Collaborator
BE-READY - Rapid Environmental Assessment Decision sYstem	PON	2021-2023	P.I.
SINAPSI - asSistenza alla Navigazione per l'Accesso ai Porti in Scurezza	UCPM-2022-PP	2020-2022	P.I.
SINBAD2 – Sicurezza della navigazione da diporto	Interreg - Marittimo European Union	2019-2022	Collaborator
SINBAD – Sicurezza della navigazione da diporto	POR-FESR Liguria 2014-2020	2018-2020	P.I.
SICOMAR+ - Sistema transfrontaliero per la sicurezza in mare Contro i rischi della navigazione e per la salvaguardia dell'ambiente MARino	Interreg - Marittimo European Union	2018-2022	P.I.
GEREMIA - Gestione dei reflui per il miglioramento delle acque portuali	Interreg - Marittimo European Union	2018-2021	P.I.
SPLASH! – Stop alle plastiche in H2O!	Interreg - Marittimo European Union	2018-2021	P.I.
RISQ'EAU – Increasing flood resilience of Alcotra territories	Interreg – Alcotra European Union	2017-2019	Collaborator
MAREGOT - MAnagement des Risques de l'Erosion cotière et actions de GOuvernance Transfrontalière	Interreg - Marittimo European Union	2017-2019	Collaborator
ICODEP - Impact of Changing fOreshore on flood DEfence Performance	Hydralab+ European Union	2016	Collaborator
Subgrid obstacle modeling in wave propagation	University of Genoa	2014	P.I.
Monitoring boat anchoring pressure on Posidonia oceanica meadows through satellite SAR imagery	ESA	2013	Collaborator
PO CRO FSE 2007/13	Regione Liguria	2013-2014	P.I.
AMSEDIS - Amplified Growth of Sediment Waves in the Irish Sea	EuroFleet European Union	2011	Collaborator
Studio dei processi Lagrangiani di mescolamento dovuti a strutture vorticosi di grande scala su acqua bassa	University of Genoa	2010	Coordinator
Effetto della presenza di Parchi Eolici offshore sulla morfodinamica costiera	MIUR, IT-ES Actions	2009	Collaborator
Strumenti per la valutazione della vulnerabilità delle aree costiere in relazione ai previsti cambiamenti climatici	MIUR	2008	Collaborator
Modellazione numerica di processi morfodinamici	MIUR	2007	Collaborator

Research  
Funding

TITLE	FINANCED BY	PERIOD	ROLE
Dinamica di forme di fondo di grande dimensioni e ampiezza finita	University of Genoa	2006	Collaborator
Cave sottomarine e ripascimenti: modellazione morfologica e applicazioni	MIUR	2005	Collaborator
MODITE - Modelli di trasporto per difesa del territorio	Fondazione CariVerona	2005	Collaborator
SANDPIT - Sand Transport and Morphology of Offshore Sand Mining Pits/Areas	European Union	2002-2005	Collaborator
HUMOR - Human interaction with large scale coastal morphological evolution	European Union	2001-2004	Collaborator
Modellazione matematica e fisica di processi di sedimentazione nella laguna di Venezia	Corila	2004	Collaborator

## ANNEXES

International Peer  
Reviewed Articles

85. Scotto, B.M., Lira Loarca, A., Novellino, A. and Besio, G. 2025 Dispersion monitoring services in the Mediterranean Sea: a multi-model statistical approach, *Marine Pollution Bulletin*. IN PRESS
84. Scovenna, M., De Leo, F., Mucerino, L., Crivellaro, M. and Besio, G., 2025 Hydrodynamics and water exchange in the Narta Lagoon, Albania, *Frontiers in Marine Science*, 12, 1593167, <https://doi.org/10.3389/fmars.2025.1593167>
83. Lira Loarca, A. and Besio, G. 2025 Ocean wave spectrum bias correction through energy conservation for climate change impacts, *Ocean Sci.*, 21, 767–785, <https://doi.org/10.5194/os-21-767-2025>
82. Toomey, T., Lira-Loarca, A., Marcos, M., Besio, G., & Orfila, A. 2025 Future wave climate in the Mediterranean Sea and associated uncertainty from an ensemble of 31 GCM-RCM wave simulations. *Earth's Future*, 13, e2024EF004992. <https://doi.org/10.1029/2024EF004992>
81. Daliri, M., De Leo, F., Lira Loarca, A., Scovenna, M., Stocchino, A., Capello, M., Cutroneo, L. and Besio, G. 2025 From hindcast to forecast: a statistical framework for real-time coastal circulation bulletins in the Gulf of Genoa. *Applied Ocean Research*, 154, 104337, <https://doi.org/10.1016/j.apor.2024.104337>
80. Corrales-Gonzalez, M., Lavidas, G., Lira Loarca, A.M. and Besio, G. 2024 Wave energy assessment and wave converters applicability at the Pacific coast of Central America. *Frontiers in Energy Research*, 12, <https://doi.org/10.3389/fenrg.2024.1454275>
79. Scardino, G., Miglietta, M.M., Kushabaha, A., Casella, E., Rovere, A., Besio, G., Borzi, A.M., Cannata, A., Mazza, G., Sabato, G. and Scicchitano, G. 2024 Fingerprinting Mediterranean hurricanes using pre-event thermal drops in seawater temperature. *Scientific Reports*, 14:8014
78. Caloiero, T., Aristodemo, F., Lira Loarca, A. and Besio, G. 2024 Detection and quantification of wave trends in the Mediterranean basin. *Dynamics of Atmospheres and Oceans*, 105, <https://doi.org/10.1016/j.dynatmoce.2023.101413>
77. Lira Loarca, A., López-Ruiz, A., Besio, G., Zarzuelo Romero, C. and Ortega-Sánchez, M. 2023 Editorial: Advances and modelling of climate change effects on coastal and estuarine hydro-morphodynamics. *Frontiers in Marine Science* 10:1301590. doi: 10.3389/fmars.2023.1301590
76. De Leo, F., Cremonini, G., Corrales-Gonzalez, M. and Besio, G. 2023 Climate analysis of wave systems for multimodal sea states in the Mediterranean Sea. *Applied Ocean Research*. 142, <https://doi.org/10.1016/j.apor.2023.103813>
75. De Leo, F., Briganti, R. & Besio, G. 2023 Trends in ocean waves climate within the Mediterranean Sea: a review. *Climate Dynamics*. <https://doi.org/10.1007/s00382-023-06984-4>
74. Corrales-Gonzalez, M., Lavidas, G. & Besio, G. 2023 Feasibility of Wave Energy Harvesting in the Ligurian Sea, Italy. *Sustainability*, 15, 9113. <https://doi.org/10.3390/su15119113>
73. Nunez, P., Mistic, C., Cutroneo, L., Capello, M., Medina, R. & Besio, G. 2023 Biofilm-induced effect on the buoyancy of plastic debris: An experimental study. *Marine Pollution Bulletin*, 193, 115239. <https://doi.org/10.1016/j.marpolbul.2023.115239>
72. Lira Loarca, A.M., Berg, P., Baquerizo, A. & Besio, G. 2023 On the role of wave climate temporal variability in bias correction of GCM-RCM wave simulation. *Climate Dynamics*. <https://doi.org/10.1007/s00382-023-06756-0>
71. Magri, S., Ottaviani, E., Prampolini, E., Federici, B., Besio, G. & Fabiano, B. 2023 Application of machine learning techniques to derive sea water turbidity from Sentinel-2 imagery. *Remote Sensing Applications: Society and Environment*, 100951, <https://doi.org/10.1016/j.rsase.2023.100951>
70. Núñez, P., Romano, A., García-Alba, J., Besio, G. & Medina, R. 2023 Wave-induced cross-shore distribution of different densities, shapes, and sizes of plastic debris in coastal environments: A laboratory experiment. *Marine Pollution Bulletin*, 187, 114561, <https://doi.org/10.1016/j.marpolbul.2022.114561>
69. Caceres-Euse, A., Molcard, A., Bourg, N., Dumas, D., Guerin, C. & Besio, G. 2022 Breakdown of near-surface sea current from high-frequency radar data. *Journal of Atmospheric and Oceanic Technology*, 39, 12, 1927-1942, <https://doi.org/10.1175/JTECH-D-22-0013.1>
68. Lira Loarca, A. & Besio, G. 2022 Future changes and seasonal variability of the directional wave

- spectra in the Mediterranean Sea for the 21st century. *Environmental Research Letters*, 17, 10, 104015, <https://doi.org/10.1088/1748-9326/ac8ec4>
67. Briganti R., Musumeci, R.E., van der Meer, J., Romano, A., Stancanelli, L.M., Kudella, M., Akbar, R., Mukhdiar, R., Altomare, C., Suzuki, T., De Girolamo, P., Besio, G., Dodd, N. Zhu, F. & Schimmels, S. 2022 Wave overtopping at near-vertical seawalls: Influence of foreshore evolution during storms. *Ocean Engineering*, 261, 112024, <https://doi.org/10.1016/j.oceaneng.2022.112024>
  66. De Leo, F., Enriquez, A.R., Orfila, A. & Besio, G. 2022 Uncertainty assessment of significant wave height return levels downscaling for coastal application. *Applied Ocean Research*, 127, 103303, <https://doi.org/10.1016/j.apor.2022.103303>
  65. Foti, G., Barbaro, G., Besio, G. Barillà, G.C., Mancuso, P. & Puntorieri, P. 2022 Wave climate along Calabrian coasts. *Climate*, 10(6), 80, <https://doi.org/10.3390/cli10060080>
  64. Reboa, A., Cutroneo, L., Consani, S., Geneselli, I., Petrillo, M., Besio, G. & Capello, M. 2022 Mugilidae fish as bioindicator for monitoring plastic pollution: Comparison between a commercial port and a fishpond (north-western Mediterranean Sea). *Marine Pollution Bulletin*, 177, 113531
  63. Porcile, G., Enrile, F., Besio, G. & Bolla Pittaluga, M. 2022 Hydrostatic vs. Non-Hydrostatic Modelling of Density Currents Developing Two Dimensionally on Steep and Mild Slopes. *Applied Ocean Research*, 121, 103085
  62. Lira-Loarca, A., Cáceres-Euse, A., De Leo, F. & Besio, G. 2022 Wave modeling with unstructured mesh for hindcast, forecast and wave hazard applications in the Mediterranean Sea. *Applied Ocean Research*, 122, 103118
  61. Gaggero, T., Bucciarelli, F., Besio, G., Mazzino, A. & Villa, D. 2022 A method to assess safety and comfort for different ship types in a region of interest, *Ocean Engineering*. 250, 110995
  60. Sebok, E., Henriksen, H. J., Pastén-Zapata, E., Berg, P., Thirel, G., Lemoine, A., Lira-Loarca, A., Photiadou, C., Pimentel, R., Royer-Gaspard, P., Kjellström, E., Christensen, J. H., Vidal, J. P., Lucas-Picher, P., Donat, M. G., Besio, G., Polo, M. J., Stisen, S., Caballero, Y., Pechlivanidis, I. G., Trolborg, L., & Refsgaard, J. C. 2022 Use of expert elicitation to assign weights to climate and hydrological models in climate impact studies, *Hydrol. Earth Syst. Sci.*, 26, 5605–5625, <https://doi.org/10.5194/hess-26-5605-2022>
  59. Cavaleri, L., Barbariol, F., Bertotti, L., Besio, G. & Ferrari, F. 2022 The 29 October 2018 storm in Northern Italy: its multiple actions in the Ligurian Sea. *Progress in Oceanography*, 201, 102715, <https://doi.org/10.1016/j.pocean.2021.102715>
  58. Carpi, L., Mucerino, L., Bonello, G., Besio, G. & Ferrari, M. 2021 Rip currents investigation on a Ligurian pocket beach, NW Mediterranean. *Estuarine, Coastal and Shelf Science*, 626, 107579, <https://doi.org/10.1016/j.ecss.2021.107579>
  57. Lira-Loarca, A., Ferrari, F., Mazzino, A. & Besio, G. 2021 Future wind and wave energy resources and exploitability in the Mediterranean Sea by 2100. *Applied Energy*, 302, 117492, <https://doi.org/10.1016/j.apenergy.2021.117492>
  56. Cecchi, G., Cutroneo, L., Di Piazza, S., Besio, G., Capello, M. & Zotti, M. 2021 Port Sediments: Problem or Resource? A Review Concerning the Treatment and Decontamination of Port Sediments by Fungi and Bacteria. *Microorganisms*, 9, 1279. <https://doi.org/10.3390/microorganisms9061279>
  55. Cremonini, G., De Leo, F., Stocchino, A. & Besio, G. 2021 On the selection of time-varying scenarios of wind and ocean waves: Methodologies and applications in the North Tyrrhenian Sea. *Ocean Modelling*, 163, 101819, <https://doi.org/10.1016/j.ocemod.2021.101819>.
  54. De Leo, F., Besio, G., Briganti, R. & Vanem, E. 2021 Non-stationary extreme value analysis of sea states based on linear trends. Analysis of annual maxima series of significant wave height and peak period in the Mediterranean Sea. *Coastal Engineering*, 167, 103896, <https://doi.org/10.1016/j.coastaleng.2021.103896>.
  53. Tesán Onrubia, J.A., Djaoudi, K., Borgogno, F., Canuto, S., Angeletti, B., Besio, G., Capello, M., Cutroneo, L., Stocchino, A., Mounier, S. & Lenoble, V. 2021 Quantification of Microplastics in North-Western Mediterranean Harbors: Seasonality and Biofilm-related Metallic Contaminants. *Journal of Marine Science and Engineering*, 9(3), 337, <https://doi.org/10.3390/jmse9030337>

52. Cutroneo, L., Ferretti, G., Barani, S., Scafidi, D., De Leo, F., Besio, G. & Capello, M. 2021 Near real-time monitoring of significant sea wave height through microseism recordings: Analysis of an exceptional sea-storm event. *Journal of Marine Science and Engineering*, 9(3), 319, <https://doi.org/10.3390/jmse9030319>
51. Canale, C., Barbaro, G., Foti, G., Petrucci, O., Besio, G. & Barillà, G.C. 2021 Bruzzano river mouth damage due to meteorological events. *International Journal of River Basin Management*, <https://doi.org/10.1080/15715124.2021.1901725>
50. Carchen, A., Gaggero, T., Besio, G., Mazzino, A. & Villa, D. 2021 A method for the probabilistic assessment of the on-board comfort on a passenger vessel route. *Ocean Engineering*, 225, <https://doi.org/10.1016/j.oceaneng.2021.108702>
49. Loarca, A.L., Cobos, M., Besio, G. & Baquerizo, A. 2021 Projected wave climate temporal variability due to climate change. *Stoch Environ Res Risk Assess*, 35, 1741–1757, <https://doi.org/10.1007/s00477-020-01946-2>
48. Rizza, U., Canepa, E., Miglietta, M.M., Passerini, G., Morichetti, M., Mancinelli, E., Virgili, S., Besio, G., De Leo, F. & Mazzino, A. 2021 Evaluation of drag coefficients under medicane conditions: Coupling waves, sea spray and surface friction. *Atmos. Res.* 247, <https://doi.org/10.1016/j.atmosres.2020.105207>
47. De Leo, F., Besio, G. & Mentaschi, L. 2020 Trends and variability of ocean waves under RCP8.5 emission scenario in the Mediterranean Sea. *Ocean Dynamics*, 71, 97–117, <https://doi.org/10.1007/s10236-020-01419-8>
46. Mentaschi, L., Vousdoukas, M., Montblanc, T.F., Kakoulaki, G., Voukouvalas, E., Besio, G. & Salamon, P. 2020 Assessment of global wave models on regular and unstructured grids using the Unresolved Obstacles Source Term. *Ocean Dynamics* 70, 1475–1483, <https://doi.org/10.1007/s10236-020-01410-3>
45. Oprandi, A., Mucerino, L., De Leo, F., Bianchi, C.N., Morri, C., Azzola, A., Benelli, F., Besio, G., Ferrari, M., Montefalcone, M. 2020 Effects of a severe storm on seagrass meadows. *Science of the Total Environment*, 748, <https://doi.org/10.1016/j.scitotenv.2020.141373>
44. Enrile, F., Besio, G., Stocchino, A. 2020 Eulerian spectrum of finite-time Lyapunov exponents in compound channels. *Meccanica*, 55(9), 1821–1828, <https://doi.org/10.1007/s11012-020-01217-y>
43. Lavidas, G., De Leo, F., Besio, G. 2020 Blue growth development in the mediterranean sea: Quantifying the benefits of an integrated wave energy converter at genoa harbour. *Energies*, 13(6), 4201, <https://doi.org/10.3390/en13164201>
42. Saviano, S., De Leo, F., Besio, G., Zambianchi, E. & Uttieri, M. 2020 HF radar measurements of surface waves in the Gulf of Naples (Southeastern Tyrrhenian Sea): comparison with hindcast results at different scales. *Frontiers in Marine Science*, <https://doi.org/10.3389/fmars.2020.00492>
41. Mazzaretto, O., Lucero, F., Besio, G., & Cienfuegos, R. 2020 Perspectives for harnessing the energetic persistent high swells reaching the coast of Chile, *Renewable Energy*, 159, 494–505, <https://doi.org/10.1016/j.renene.2020.05.031>
40. De Leo, F., Solari, S. & Besio, G. 2020 Extreme wave analysis based on atmospheric pattern classification: an application along the Italian coast, *Nat. Hazards Earth Syst. Sci.*, 20, 1233–1246, <https://doi.org/10.5194/nhess-20-1233-2020>
39. De Leo, F., De Leo, A., Besio, G. & Briganti, R. 2020 Detection and quantification of trends in time series of significant wave heights: An application in the Mediterranean Sea. *Ocean Engineering*, 202, 107155, [doi.org/10.1016/j.oceaneng.2020.107155](https://doi.org/10.1016/j.oceaneng.2020.107155).
38. Cutroneo, L., Reboa, A., Besio, G. et al. 2020 Microplastics in seawater: sampling strategies, laboratory methodologies, and identification techniques applied to port environment, *Environmental Science and Pollution Research*. [doi.org/10.1007/s11356-020-07783-8](https://doi.org/10.1007/s11356-020-07783-8)
37. Ferrari, F., Besio, G., Cassola, F. & Mazzino, A. 2020 Optimized wind and wave energy resource assessment and offshore exploitability in the Mediterranean Sea. *Energy*, 190, 116447, [doi.org/10.1016/j.energy.2019.116447](https://doi.org/10.1016/j.energy.2019.116447)
36. Stocchino, A., De Leo, F. & Besio, G. 2019 Sea waves transport of inertial micro-plastics: mathematical model and applications. *Journal of Marine Science and Engineering*, 7(1), 467
35. Putzu, S., Enrile, F., Besio, G., Cucco, A., Cutroneo, L., Capello, M. & Stocchino, A. 2019 A

- reasoned comparison between two hydrodynamic models: Delft3d-Flow and ROMS (Regional Oceanic Modelling System). *Journal of Marine Science and Engineering*, 7(1), 464
34. Enrile F., Besio G., Stocchino A., Magaldi M.G. 2019 Influence of initial conditions on absolute and relative dispersion in semi-enclosed basins. *PLOS ONE* 14(7): e0217073, doi:10.1371/journal.pone.0217073
  33. Lo Re, C., Manno, G. Ciralo, G. & Besio, G. 2019 Wave Energy Assessment around the Aegadian Islands (Sicily). *Energies*, 12, 333, doi:10.3390/en12030333
  32. De Leo, F., Besio, G., Zolezzi, G. & Bezzi, M. 2019 Coastal Vulnerability assessment: through regional to local downscaling of wave characteristics along the Bay of Lalzit (Albania). *Natural Hazards and Earth System Science*, 19, pp. 287-298, doi.org/10.5194/nhess-19-287-2019
  31. Mentaschi, L., Vousedoukas, M., Besio, G. & Feyen, L. 2019 alphaBetaLab: Automatic estimation of subscale transparencies for the Unresolved Obstacles Source Term in ocean wave modelling. *SoftwareX*, 9, pp. 1-6, doi.10.1016/j.softx.2018.11.006
  30. Mucerino, L., Albarella, M., Carpi, L., Besio, G., Benedetti, A., Corradi, N. Firpo, M. & Ferrari, M. 2019 Coastal Exposure on Bonassola bay. *Ocean and Coastal Management*, 167, pp. 20-31, doi:10.1016/j.ocecoaman.2018.09.015
  29. Ferretti, G., Barani, S., Scafidi, D., Capello, M., Cutroneo, L., Vagge, G., Besio, G. 2018. Near real-time monitoring of significant sea wave height through microseism recordings: an application in the Liguria Sea (Italy). *Ocean and Coastal Management*, 165, pp. 185-194, doi:10.1016/j.ocecoaman.2018.08.023
  28. Enrile, F., Besio, G., Stocchino, A., Magaldi, M.G., Mantovani, C., Cosoli, S., Gerin, R. & Poulain, P.M. 2018. Evaluation of surface Lagrangian transport barriers in the Gulf of Trieste. *Continental Shelf Research*, 167, pp. 125-138, doi:10.1016/j.csr.2018.04.016
  27. Mentaschi, L., Kakoulaki, G., Vousedoukas, M., Voukouvalas, E., Feyen, L. & Besio G. 2018. Parametrizing unresolved obstacles with source terms in wave modeling: a real-world application. *Ocean Modelling*, 126, pp. 77-84, doi:10.1016/j.oceomod.2018.04.003
  26. Bozzi, S., Besio, G. & Passoni, G. 2018. Wave power technologies for the Mediterranean offshore: Scaling and performance analysis. *Coastal Engineering*, 136, pp. 130-146, doi:10.1016/j.coastaleng.2018.03.001
  25. Enrile, F., Besio, G. & Stocchino, A. 2018. Shear and Shearless Lagrangian Structures in compound channels. *Advances in Water Resources*, 113, pp. 141-154, doi:10.1016/j.advwatres.2018.01.006
  24. Pepe, F., Corradino, M., Parrino, N., Besio, G., Lo Presti, V., Renda, P., Calcagnile, L., Quarta, G., Sulli, A., & Antonioli, F. 2018. Boulder coastal deposits at Favignana Island rocky coast (Sicily, Italy): Litho-structural and hydrodynamic control. *Geomorphology*, 303, pp. 191-209, doi:10.1016/j.geomorph.2017.11.017
  23. Sartini, L., Besio, G. & Cassola, F. 2017. Spatio-temporal modelling of extreme wave heights in the Mediterranean Sea. *Ocean Modeling*, 117, pp. 52-69, doi:10.1016/j.oceomod.2017.07.001
  22. Masina, M., Archetti, R., Besio, G. & Lamberti, A. 2017. Tsunami taxonomy and detection from recent Mediterranean tide gauge data. *Coastal Engineering*, 127, pp. 145-169, doi:10.1016/j.coastaleng.2017.06.007
  21. Besio, G., Briganti, R., Romano, A., Mentaschi, L. & De Girolamo, P. 2017. Time clustering of wave storms in the Mediterranean Sea. *Natural Hazards and Earth System Science*, 17, pp. 505-514, doi:10.5194/nhess-17-505-2017
  20. Mentaschi, L., Vousedoukas, M., Voukouvalas, E., Sartini, L., Feyen, L., Besio, G. & Alfieri, L. 2016. The transformed-stationary approach: a generic and simplified methodology for non-stationary extreme value analysis. *Hydrology and Earth System Sciences*, 20, pp. 3527-3547, doi:10.5194/hess-20-3527-2016
  19. Besio G., Mentaschi L. & Mazzino A., 2016. Wave energy resource assessment in the Mediterranean Sea on the basis of a 35-year hindcast. *Energy*, 94, pp. 50-63, doi:10.1016/j.energy.2015.10.044
  18. Sartini L., Cassola F. & Besio G., 2015. Extreme waves seasonality analysis: an application in the Mediterranean Sea. *Journal of Geophysical Research – Oceans*, 120, pp. 6266-6288, doi:

10.1002/2015JC011061

17. Mentaschi L., Perez J., Besio G., Mendez F. & Menendez M. 2015. Parameterization of unresolved obstacles in wave modeling: a source term approach. *Ocean Modelling*, 96, pp. 93-102, doi:10.1016/j.ocemod.2015.05.004
16. Mentaschi L., Besio G., Cassola F. & Mazzino A., 2015. Performance evaluation of WavewatchIII in the Mediterranean Sea. *Ocean Modelling*, 90, pp. 82-94, doi:10.1016/j.ocemod.2015.04.003
15. Sartini L., Mentaschi L. & Besio G., 2015. Comparing different extreme wave analysis models for wave climate assessment along the Italian coast. *Coastal Engineering*, 100, pp. 37-47, doi:10.1016/j.coastaleng.2015.03.006
14. Mentaschi L., Besio G., Cassola F. & Mazzino A., 2013. Problems in RMSE-based wave model validations. *Ocean Modelling*, 72, pp. 53-58 doi:10.1016/j.ocemod.2013.08.003
13. Mentaschi L., Besio G., Cassola F. & Mazzino A., 2013. Developing and validating a forecast/hindcast system for the Mediterranean Sea. *Journal of Coastal Research*, Special Issue 65, pp. 1551-1556
12. Besio G., Stocchino A., Angiolani S. & Brocchini M., 2012. Transversal and longitudinal mixing in compound channels. *Water Resources Research*, 48, W12517, 15 pp. doi:10.1029/2012WR012316
11. Stocchino A., Besio G., Angiolani S. & Brocchini M., 2011. Lagrangian mixing in straight compound channels. *Journal of Fluid Mechanics*, 675, pp. 168-198, doi: 10.1017/S0022112011000127
10. Borsje B.W., Buijsman M.C., Besio G., de Vries M.B., Hulscher S.J.M.H., Herman P.M.J. & Ridderinkhof H., 2009. On the modelling of bio-physical influences on seasonal variation in sandwave dynamics. *Journal of Coastal Research*, Special Issue 56, pp 698-702
9. Borsje B.W., de Vries M.B., Bouma T.J., Besio G., Hulscher S.J.M.H. & Herman P.M.J., 2009. Modeling bio-geomorphological influences for offshore sandwaves. *Continental Shelf Research* 29, pp. 1289-1301, doi:10.1016/j.csr.2009.02.008
8. Besio G., Blondeaux P., Brocchini M., Hulscher S.J.M.H., Idier D., Knaapen M.A.F., Németh A.A., Roos P.C. & Vittori G., 2008. The morphodynamic of tidal sand waves: a model overview. *Coastal Engineering* 55/7-8, pp 657-670, doi:10.1016/j.coastaleng.2007.11.004
7. Besio G. & Losada M.A., 2008. Sediment transport patterns at Trafalgar Offshore Windfarm. *Ocean Engineering*, 35, pp. 653-665, doi:10.1016/j.oceaneng.2008.01.002
6. Cherlet J., Besio G., Blondeaux P., van Lancker V., Verfaillie E. & Vittori G., 2007. Modelling sand waves characteristics on the Belgian continental shelf and in the Calais-Dover Strait. *Journal of Geophysical Research* 112, C06002, doi:10.1029/2007JC004089.
5. Besio G., Blondeaux P., Vittori G., 2006. On the formation of sand waves and sand banks. *Journal of Fluid Mechanics* 557, pp. 1-27, doi:10.1017/S0022112006009256.
4. Besio G., Blondeaux P. & Vittori G., 2005. A three-dimensional model of sand bank formation. *Oceans Dynamics* 55 (5-6), pp. 515-525, doi:10.1007/S10236-005-0027-0.
3. Besio G., Blondeaux P., Brocchini M. & Vittori G., 2004. On the modeling of sand waves migration. *Journal of Geophysical Research* 109, C4, C04018, doi:10.1029/2002JC001622.
2. Besio G., Blondeaux P., Frisina P., 2003. A note on tidally generated sand waves. *Journal of Fluid Mechanics* 485, pp. 171-190, doi:10.1007/S0022112003004415.
1. Besio G., Blondeaux P., Brocchini M. & Vittori G., 2003. Migrating sand waves. *Oceans Dynamics* 53, pp. 232-238, doi:10.1007/S10236-003-0043-x.

International  
Conferences

80. Crivellaro, M., De Leo, F., Cekrezi, B., Bajrami, F., Besio, G. and Zolezzi, G. 2025 Coupling littoral and fluvial sediment transport for shoreline sensitivity assessment. In Proceedings of 14<sup>th</sup> Symposium on River, Coastal and Estuarine Morphodynamics RCEM, Barcelona, Spain
79. Giaroli, F., Besio, G. and Lira Loarca, A. 2023 Climate change impacts and risks of extreme coastal water level events in the Mediterranean Sea. In Proceedings of SCACR 2023, Istanbul, Turkey
78. Scovenna, M., De Leo, F. and Besio, G. 2023 Hydrodynamic Characterization of Narta Lagoon, Albania. In Proceedings of SCACR. Istanbul, Turkey
77. Scotto, B.M., Lira-Loarca, A., Besio, G. 2023 Dispersion monitoring services in the Mediterranean Sea: a multi-model statistical approach. In Proceedings of SCACR. Istanbul, Turkey
76. Scotto, B.M., Lira-Loarca, A. and Besio, G. 2023. Dispersion monitoring services in the Ligurian and Northern Tyrrhenian Seas: a multi-model statistical approach. Seafuture Awards. La Spezia, Italy
75. Lira-Loarca, A. and Besio, G. 2023 Past and Future Seasonal Variability of the Spectral Wave Climate in the Mediterranean Sea, in Proceedings of 3rd International Workshop on Waves, Storm Surges, and Coastal Hazards and 17th International Workshop on Wave Hindcasting and Forecasting, Notre Dame, USA
74. Lira-Loarca, A., Russo, A., Carniel, S., Bolla Pittaluga, M. and Besio, G. 2023 Future changes in wave climate in the Mediterranean Sea and high north seas under naval operations perspective in Proceedings Climate Change and Security Workshop, Lerici, Italy
73. Lira-Loarca, A. and Besio, G. 2023 Future changes in magnitude and frequency of extreme waves in the Mediterranean Sea, in Proceedings of SCACR 2023. Istanbul, Turkey
72. Lira-Loarca, A. and Besio, G. 2023 Changes in wave extremes in the Mediterranean Sea due to climate change, 9th International Conference on Meteorology and Climatology of the Mediterranean, Genoa, Italy
71. Lira-Loarca, A., Besio, G. 2023 Future extreme wave events in the Mediterranean Sea by 2100, in Proceedings of the Effects of Climate Change in the World's Ocean (ECCWO5), Bergen, Norway
70. Giaroli, F., Lira Loarca, A. and Besio, G. 2023 Future changes in joint waves and storm surge events in the Mediterranean Sea. In Proceedings of the Effects of Climate Change in the World's Ocean (ECCWO5), Bergen, Norway
69. Corrales-Gonzalez, M., Lavidas, G. and Besio, G. 2023 September. Feasibility of wave energy harvesting in the Ligurian Sea. In Proceedings of the European Wave and Tidal Energy Conference (Vol. 15)
68. Giaroli, F., Lira Loarca, A. and Besio, G. 2022 Future changes in joint waves and storm surge events in the Mediterranean Sea. In WCRP Sea Level Conference, Singapore
67. Lira-Loarca, A., Mentaschi, L. and Besio, G. 2022 Future changes in extreme waves and their seasonality in the Mediterranean Sea," in Proceedings of the International Conference in Coastal Engineering, Sydney, Australia
66. Corrales-Gonzalez, Lira-Loarca, A. and Besio, G. 2022 Wave hindcast in the Pacific of Central America by using an Unstructured mesh. 37th International Conference on Coastal Engineering, Copri ASCE, Engineers of Australia, Sydney, Australia.
65. Serri, L., Peviani, M., Besio, G., Alborghetti, S. & Milani, S. 2022 Combined wind and wave energy production in the Sicily Channel. International Conference on Ocean Energy, 18-20 October 2022, San Sebastian, Spain
64. Aristodemo, F., Caloiero, T., Lira Loarca, A. & Besio, G. 2022 Detection and quantification of wave trends in Southern Italy. 8<sup>th</sup> International Conference on Time Series and Forecasting ITISE. Gran Canaria, Spain
63. Canale, C., Barbaro, G., Petrucci, O., Besio, G., Foti, G., Barillà, G.C. & Puntorieri, P. 2020. Analysis of the concurrent conditions of floods and sea storms: a case study of

### International Conferences

- Crotone, Italy. WIT Transactions on Engineering Sciences, 129, 147-156, doi.org/10.2495/RISK200131
61. Cremonini, G., Besio, G., Lagomarsino, D. & Seminara, A. 2020. A machine learning approach to achieve accurate time series forecast of sea-wave conditions. EGU2020, 4-8 May, online, doi.org/10.5194/egusphere-egu2020-22666
  60. Lira-Loarca, A., Cobos, M., Millares, A., Besio, G. & Baquerizo, A. 2020. Integrated extreme sea level events in the Mediterranean coast of Spain. EGU2020, 4-8 May, online, doi.org/10.5194/egusphere-egu2020-7951
  59. Mentaschi, L., Besio, G., Vousdoukas, M. and Feyen, L. 2019 The Unresolved Obstacles Source Term, application cases on regular and triangular meshes. 2nd International Workshop on Waves, Storm Surges and Coastal Hazard. Melbourne, Australia, 10-15 November
  58. Besio, G., Mentaschi, L., & De Leo, F., 2019 Trends and variability of waves under scenario RCP8.5 in the Mediterranean Sea. 2nd International Workshop on Waves, Storm Surges and Coastal Hazard. Melbourne, Australia, 10-15 November
  57. Carpi, L., Mucerino, L., Besio, G., Corradi, N. & Ferrari, M. 2019. MAREGOT project experience: Integrated approach to understanding coastal dynamics behaviour. Metrosea, 3-5 October, Genova, Italy
  58. Ottaviani, E. et al. 2019. SINDBAD: a new operational service for a safer leisure and boating navigation. Metrosea, 3-5 October, Genova, Italy
  57. De Leo, F., Besio, G., Saviano, S., Zambianchi, E. & Uttieri, M. 2019. Evaluation of HF-radar wave measures in the Gulf of Naples. IMEKO TC-19 Metrosea, 3-5 October, Genova, Italy
  56. Lira-Loarca, A., Cobos, M., Besio, G. & Baquerizo, A. 2019. Coastal flooding due to extreme events in the Mediterranean coast of Spain. ICRC-CORDEX, 14-18 October, Beijing, China
  - 55.. Reboa, A., L. Cutroneo, G. Besio, F. Borgogno, L. Canesi, S. Canuto, K. Djaoudi, F. Enrile, I. Forioso, G. Greco, V. Lenoble, A. Malatesta, S. Mounier, M. Petrillo, A. Stocchino, J. Tesan, M. Capello 2019. SPiash! - Stop to plastic in H2O! An EU Project to investigate the state of the port environment. Heraklion2019, 26-29 June, Heraklion, Greece
  54. De Leo, A., De Leo, F. Besio, G. & Briganti, R. 2019. Climatic trends analysis of sea waves in the Mediterranean basin. SCACR19, 9-11 September, Bari, Italy
  53. De Leo, F., Solari, S. & Besio, G. 2019. Extreme waves evaluation due to clustering techniques: an application in Mazara del Vallo (Sicily). SCACR19, 9-11 September, Bari, Italy
  52. Cremonini, G. & Besio, G. 2019. Wave spectral climatology in the Mediterranean Sea: a new methodology based on spectral partitions. SCACR19, 9-11 September, Bari, Italy
  51. Stocchino, A., De Leo, F. & Besio, G. 2019. Wave-induced kinematic of microplastics in the sea: mathematical model and practical examples. SCACR19, 9-11 September, Bari, Italy
  50. Lo Re, C., Manno, G., Besio, G. & Ciraolo, G. 2019. Efficiency of Wave Energy converters off the Sicilian Channel. EWTEC19, 1-6 September, Naples, Italy
  49. Besio, G., Briganti, R., Romano, A., Mentaschi, L. & DE Girolamo, P. 2017. Occurrence of time clustering of wave storms in the Mediterranean Sea: a spatial analysis. International Short Course and Conference on Applied Coastal Research, 3-6 October, Santander, Spain
  48. Musumeci, R.E., Stancarelli, L.M., Romano, A., Besio, G. & Briganti, R. 2017. Response of engineered beaches to sequences of storms. 10th Symposium on River, Coastal and Estuarine Morphodynamics, 15-22 September, Trento-Padova, Italy
  47. Besio, G., Briganti, R., Romano, A., Mentaschi, L. & De Girolamo, P. 2017. Storm clustering in the Mediterranean Sea. 15th International Workshop on Wave Hindcasting and Forecasting, 11-15 September, Liverpool, UK

International  
Conferences

46. De Leo, F., Besio, G., Zughayar, R., Gudmestad, O.T. & Harre S. 2017. Estimating a proper threshold within the POT approach: a simple intuitive procedure. 3rd Conference in Extreme Value Analysis and Application, 5-7 September, Southampton, UK
45. Zughayar, R., Gudmestad, O.T., De Leo, F. & Besio, G. 2017. Metocean extreme estimations: the sensitivity of offshore design measures to statistics' uncertainties. 27th ISOPE - International Society of Offshore and Polar Engineers, 25-30 June, San Francisco, California, USA
44. Spentza, I., Besio, G., Mazzino, A., Gaggero, T. & Villa, D. 2017. A ship weather routing tool for route evaluation and selection. International Maritime Association of the Mediterranean Conference, Lisbon, Portugal, 9-11 October
43. Saviano, S., Uttieri, M., Besio, G. & Zambianchi, E. 2017. Wave measurements and models in the Thyrrenian Sea. EGU General Assembly, 23-28 April, Wien, Austria
42. De Leo, F., Besio, G., Zolezzi, G., Bezzi, M., Lami, I. & Floqi, T. 2016. Coastal erosion triggered by political and socio-economical abrupt changes: the case of Lalzit bay, Albania. 35th ICCE - International Conference on Coastal Engineering, Antalya, Turkey, November 17-20
41. Nepita, I., Lagazzo, A., Barone, S., Besio, G., Stocchino A. & Repetto, R. 2016. Rheological characterization of an embryo culture liquid and implications for culture in microfluidic devices. Summer Biomechanics, Bioengineering and Biotransport Conference June 29 –July 2, National Harbor, MD, USA
40. Mucerino, L., Carpi, L., Besio, G., Benedetti, A., Ferrari, M. & Firpo, M. 2016. Coastal Vulnerability Assessment. Study Case: Bonassola - La Spezia Italy. Rend. Online Soc. Geol. It., Naples, September 7-9, pp. 357
39. Sartini, L., Besio, G., Dentale, F. & Reale, F. 2016. Wave Hindcast Resolution Reliability for Extreme Analysis 26th ISOPE - International Ocean and Polar Engineering Conference, Rhodes, June 26-July 1, pp. 1319-1325
38. Besio, G., Donini, L., Gallino, S. & Onorato, L. 2015. A prompt index for sea storm hazards. 7th SCACR - Short Course and Conference on Applied Coastal Research, Florence, 28 September-01 October, 12 pp.
37. De Santis, G., Besio, G., Mentaschi, L. & Mazzino, A. 2015. A preliminary wave energy exploitation assessment in the Northern Thyrrenian Sea. Oceans MTS/IEEE Proceedings, Genova, 18-21 May
36. Corgnati, L., Mazzei, L., Marini, S., Isoppo, B., Ottaviani, B., Besio, G. & Magaldi, M. 2015. High resolution stereo imaging of sea waves for validation and optimization of nearshore dynamics modelling. Oceans MTS/IEEE Proceedings, Genova, 18-21 May
35. Enrile, F., Besio, G., Magaldi, M., Cosoli, S., Gerin, R. & Poulain, P.M. 2015. Lagrangian coherent structures deduced from HF-radar measurement. Oceans MTS/IEEE Proceedings, Genova, 18-21 May
34. Hariri, S., Besio, G. & Stocchino, A. 2015. Comparison of Finite Time Lyapunov Exponents and mean flow energy during two contrasting years in the Adriatic Sea. Oceans MTS/IEEE Proceedings, Genova, 18-21 May
33. Sartini, L., Mentaschi, L. & Besio, G. 2015. Evaluating third generation wave spectral models performances in coastal areas. An application to Eastern Liguria. Oceans MTS/IEEE Proceedings, Genova, 18-21 May
32. Mentaschi, L., Pérez, J., Besio, G., Mendez, F. & Menendez, M. 2015 Source term parameterization of unresolved obstacles in wave modelling. EGU General Assembly, 12-17 April, Wien, Austria
31. Viola, F., Besio, G. & Mentaschi, L. 2015. Joint probability of sea waves and river discharges: a case study. EGU General Assembly, 12-17 April, Wien, Austria
30. Sartini, L., Mentaschi, L. & Besio, G. 2014. Sub-mesoscale wave height return levels on the basis of hindcast data: the North Thyrrenian Sea. Coastal Engineering Proceedings, 1(34), waves-39, 13 pp.
29. Sartini, L., Mentaschi, L. & Besio, G. 2014. How an optimized meteocean modelling chain

### International Conferences

- provided 30 years of wave hindcast statistics: the case of the Ligurian Sea. In Proc. of XXXIV International Conference on Coastal Engineering, J. McKee Smith Ed., World Scientific. Seoul, South Korea, 15-20 June
28. Garcia-Contreras, D., Herrero, J., Besio, G. Baquerizo, A. & Losada, M.A. 2014. Coastal flood management system in a jointly approach of maritime and hydraulics forcings. In Proc. of XXXIV International Conference on Coastal Engineering, J. McKee Smith Ed., World Scientific. Seoul, South Korea, 15-20 June
  27. Besio, G., Enrile, F., Magaldi, M., Mantovani, C., Cosoli, S., Gerin, R. & Poulain, P.M. 2014. Reliability of LCS detection depending on HF-radar velocity dataset. Ocean Science Meeting, 23-28 February, Honolulu, Hawaii, USA. Abstract 712 1 pp
  26. Besio, G., Enrile, F., Magaldi, M., Mantovani, C., Cosoli, S., Gerin, R. & Poulain, P.M. 2013. Lagrangian Coherent Structures in the Trieste gulf. AGU Fall Meeting, 9-13 December, San Francisco, California, USA. Abstract OS21C-06 1 pp
  25. Mentaschi, L., Besio, G., Cassola, F. & Mazzino, A. 2013. Improving wave model validation based on RMSE. 13th International Workshop on Wave Hindcasting and Forecasting and Coastal Hazards, Banff, Canada, 28 October - 1 November
  24. Garcia, D., Baquerizo, A., Losada, M. & Besio, G. 2013. Prevision y gestion de grandes inundaciones, aplicacion al levante de Almeria. In Proc. II Congreso Internacional de Ingenieria Civil y Territorio, pp 205-206. Vigo, Spain, 20-21 May 23. Angiolani, S., Besio, G., Stocchino, A. & Brocchini, M. 2013 An experimental analysis of dispersion and diffusion processes in compound channels. EGU General Assembly, Wien, Austria, 07-12 April.
  22. Mentaschi, L., Besio, G., Cassola, F. & Mazzino, A. 2013 Why NRMSE is not completely reliable for forecast/hindcast model test performances. EGU General Assembly, Wien, Austria, 07-12 April.
  21. Mentaschi, L., Besio, G., Cassola, F. & Mazzino, A. 2013 Implementation and validation of a wave hindcast/forecast model for the West Mediterrenean. In: Proc of 12th International Coastal Symposium, Plymouth, UK, 8-12 April.
  20. Van Landeghem, K., Besio, G., Niemann, H., Mellet, C., Huws, D., Steinle, L., O'Reilly, S., Croker, P., Hodgson, D. & Williams, D. 2013 Amplified sediment waves in the Irish Sea (AMSEDIS). In: Proc. of 4th Marine Sandwave and River Dune Dynamics Workshop, XX., Eds, Bruges, Belgium, 15-16 April.
  19. Angiolani, S., Besio, G., Stocchino, A. & Brocchini, M. 2012 Dispersion of passive tracers in compound channels. IAHR River Flow Conference, San Josè, Costa Rica, 5-7 September.
  18. Garcia-Contreras, D., Besio, G., Ortega-Sanchez, M., Baquerizo, A. & Losada, M.A. 2012 Procesos naturales erosivo-sedimentarios amplificados por factores antropogenicos en tramos costeros, aplicacion al levante de Almeria. In Proc. VI Congreso Iberoamericano de Control de la Erosion y los Sedimentos, Granada, Spain, 1-4 October.
  17. Besio G. & Stocchino A., 2011 Detection of Lagrangian Coherent Structures due to shallow water macrovortices in compound channels. In: Proc. Of 7th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Beijing, China, 06-08 September.
  16. Besio G., Stocchino A., Angiolani S. & Brocchini M., 2010 Lagrangian mixing in Compound Channels. In: Proc. Of 8th Euromech Fluid Mechanics Conference. Springer. Bad Reichenhall, Germany, 13-16 September
  15. Innocenti C., Taramelli A., Besio G., Pascoletti F.C., Disperati L. & Aiello I.W., 2009 Prediction of the Dynamic Behaviour and Migration Rates of Sand Waves in the Monterey Canyon System of California. Eos, Vol. 90, Number 52, 29 December, Fall Meet. Suppl., Abstract EP43A-0650
  14. Borsje B.W., Buijsman M.C., Besio G., Hulscher S.J.M.H., Herman P.M.J. & Ridderinkhof H., 2009 Bio-geomorphological interactions in sandwave migration. In: Proc. of 6th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, C.A. Vionnet, M.H. Garcia, E.M. Latrubesse & G.M.E. Perillo Eds. - Santa Fe, Argentina, 21-25 September, Vol II, pp. 567-574

International  
Conferences

13. Stocchino A., Besio G. & Brocchini M., 2009 Turbulent characteristics and Lagrangian Coherent Structures (LCS) in uniform compound channels. In: Proc. of 6th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, C.A. Vionnet, M.H. Garcia, E.M. Latrubesse & G.M.E. Perillo Eds. - Santa Fe, Argentina, 21-25 September, Vol I, pp. 411-418
12. Borsje, B.W., Buijsman, M.B., Besio, G., De Vries, M.B., Hulscher, S.J.M.H., Herman, P.M.J. & Ridderinkhof, H., 2009 Modelling bio-physical influences on sandwave dynamics. In Proceedings of NCK-days, Texel, The Netherlands, 25-28 March, pp. 30
11. Borsje, B. W., de Vries, M.B., Bouma, T.J., Besio, G., Hulscher, S.J.M.H. & Herman, P.M.J., 2008. Modeling Bio-Geomorphological influences for offshore sandwaves. In Proc. of XXXI International Conference on Coastal Engineering, J. McKee Smith Ed., World Scientific. Hamburg, Germany, 1-5 September, Vol 5, pp. 4423-4435
10. Borsje B.W., Besio G., Hulscher S.J.M.H., Blondeaux P. & Vittori G., 2008. Exploring biological influence on offshore sandwave length. In Proceedings 3rd Marine Sandwave and River Dune Dynamics Workshop, Leeds, UK, 1-3 April
9. Mendonca A., Brocchini M., Besio G. & Piattella A., 2007 Flow mixing solutions of a Boussinesq-type model: towards a dispersive HLES. Proc. Of 7th Asian Computational Fluid Dynamics Conference, X. Deshpande S.M., Majumdar S. and Purohit, S.C. Eds. Bangalore, India, 26-30 November, pp 1317-1326
8. Besio G., Blondeaux P., van Lancker V., Verfaillie E. & Vittori G., 2007. Sand waves characteristics: theoretical predictions versus field data. Proc. of 5th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, C.M. Dohmen-Janssen & S.J.M.H. Hulscher Eds. - Enschede, The Netherlands, 17-21 September, Vol II, pp. 985-992
7. Besio G. & Losada M.A., 2006. Sediment transport patterns in the "Mar de Trafalgar" offshore windfarm. In: Proceedings of 30th International Conference on Coastal Engineering, San Diego, California, USA, 3-8 September, Ed. J. McKee Smith, World Scientific, V3 pp. 2318-2329
6. Besio G., Blondeaux P., Vittori G., 2005. Sand bank formation: comparison between 2D and 3D models. Proc. of 4th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, G. Parker & M.H. Garcia Eds. - Urbana, Illinois, USA, 4-7 October, Vol II, pp. 973-980
5. Besio G., Blondeaux P., Vittori G., 2004. On the formation of sand waves and sand banks: a unified theory. Extended Abstracts, 12th PECS, Merida, Mexico
4. Besio G., Blondeaux P., Vittori G., 2003. The flow and sediment transport induced by tide propagation. Book of Abstracts of the Euromech Colloquium N. 451, E. Foti & J. Fredsoe Eds. - Taormina, Italy, 26-29 October, pp. 19-20
3. Besio G., Blondeaux P., 2003. On the effect of the suspended load on the formation of sand waves. Proc. of 3rd IAHR Symposium on River, Coastal and Estuarine Morphodynamics, A. Sanchez-Arcilla & A. Bateman Eds. - Barcelona, Spain, 1-5 September, Vol I, pp. 365-375
2. Besio G., Blondeaux P., Brocchini M. & Vittori G., 2002. Migrating sand waves. Extended Abstracts, 11th PECS 2002, Hamburg, Germany, pp. 263-267
1. Besio G., Blondeaux P., Brocchini M. & Vittori G., 2002. A model for sand waves migration. Geophysical Research Abstracts, EGS02-A-00041, p. 295

## Book Chapters

4. Besio G. 2014. Il progetto della costa: le sistemazioni costiere. In: Ingegneria e paesaggio in Italia. Un progetto per le valli e per le coste. Donzelli Editore, pp. 87-109.
3. Besio G., Bobbio R., Mazzino F. 2014. Il progetto incompiuto della costa ligure. In: Ingegneria e paesaggio in Italia. Un progetto per le valli e per le coste. Donzelli Editore, pp. 157-191.
2. Vittori G., Blondeaux P. & Besio G. 2005. Morphological modelling of sand waves, sand banks and shallow pits using stability analysis models. In Sand transport and morphology of offshore sand mining pits – SANDPIT. L.C. Van Rijn, R.L. Soulsby, P.Hoekstra & A.G. Davies Editors.
1. Németh A.A., Blondeaux P., Hulscher S.J.M.H, Besio G., Roos P.C., Vittori G., Knaapen M.A.F., Brocchini M., van der Veen H.H. & Idier D. 2004. Models of offshore sand waves and sand banks and their application. In: Jornadas sobre Advances en Ingegniria de Costas y Oceanografia Operacional. Losada M.A. & Baquerizo A. Editors. pp. 53-74.

## Technical Reports

28. Besio G., Enrile, F. 2018 Morphodynamic evolution of nourished beaches in the Black Sea – Final Report. March 2018. DICCA Uni-Ge 35 pp.
27. Besio, G., Spentza E. 2017 Indagine teorico/sperimentale sul comportamento di cassoni di banchina assorbenti – Relazione Finale. Dicembre 2017. DICCA Uni-Ge 26 pp.
26. Besio G., De Leo F. 2017 Wave hindcast analysis in the RAMOGE Region – Final Report. October 2017. DICCA UniGe 40 pp.
25. Besio G., Enrile F., De Leo F. 2016 Studio del clima ondoso all'interno del Golfo di La Spezia – Relazione Finale. Gennaio 2017. DICCA Uni-Ge 40 pp.
24. Bruzzone D., Podenzana C., Besio G., Enrile F. 2014 Studio delle formazioni ondose generate da una nave traghetto veloce e dell'effetto di esse sulla costa – Relazione Finale. Marzo 2014. DICCA Uni-Ge 40 pp.
23. Besio G., Mazzino A. & Sartini L. 2013 Studio e implementazione di modellistica operativa previsionale del moto ondoso nel Mar Ligure – Relazione Finale. Fase 4. Novembre 2013, DICCA Uni-Ge 84 pp.
22. Landò Rebaudengo L. & Besio G. 2013 Indagine teorico/sperimentale sul comportamento della spiaggia di Vernazzola in relazione a eventi ondosi particolarmente severi - Report Finale. Ottobre 2013, DICCA Uni-Ge, 54 pp.
21. Besio G., Mentaschi L. & Mazzino A. 2013 Valutazione del clima meteo-marino al largo del Mar Ligure. Agosto 2013, DICCA Uni-Ge 23 pp.
20. Besio G., Mentaschi L., Cassola F., & Mazzino A. 2013 Studio e implementazione di modellistica operativa previsionale del moto ondoso nel Mar Ligure – Integrazione Relazione Intermedia. Fase 1 e Fase 2. Luglio 2013, DICCA Uni-Ge 92 pp.
19. Besio G., Mentaschi L., Cassola F., & Mazzino A. 2012 Studio e implementazione di modellistica operativa previsionale del moto ondoso nel Mar Ligure - Relazione Intermedia. Fase 1 e Fase 2. Agosto 2012, DICCA Uni-Ge 30 pp.
18. Besio G., Mazzino A. & Stocchino A. 2012 Analisi dell'impatto dello scarico termico del terminale mediante soluzioni analitiche FSRU Offshore Livorno – Relazione Finale. Luglio 2012, Uni-Ge, 13 pp.
17. Landò Rebaudengo L. & Besio G. 2012 Indagine preliminare su modello fisico in vasca per verificare l'efficacia di dispositivi "OWCM" per la produzione di energia elettrica dal moto ondoso – Relazione Finale. Luglio 2012, UniGe, 23 pp.
16. Besio G., Repetto R. & Stocchino A. 2011 Modellazione fisica per la determinazione del possibile rilascio di fibre di amianto in aria durante le operazioni di sversamento a mare del materiale di smarino – Relazione 2. Agosto 2011, Uni-Ge, 39 pp.
15. Besio G., Repetto R. & Stocchino A. 2011 Modellazione fisica per la determinazione del possibile rilascio di fibre di amianto in aria durante le operazioni di sversamento a mare del materiale di smarino – Relazione 1. Maggio 2011, DICCA Uni-Ge, 17 pp.
14. Seminara G., Colombini M., Stocchino A., Bolla Pittaluga M. & Besio G. 2011 Convenzione di collaborazione scientifica per il modello fisico a fondo mobile dei deflussi nel Fiume Tanaro in corrispondenza dell'attraversamento della città di Alessandria – Relazione Finale, Gennaio 2011, DICAT Uni-Ge, 39 pp.
13. Seminara G., Colombini M., Stocchino A., Bolla Pittaluga M. & Besio G. 2009 Convenzione di collaborazione scientifica per il modello fisico a fondo mobile dei deflussi nel Fiume Tanaro in corrispondenza dell'attraversamento della città di Alessandria – Relazione Intermedia, Dicembre 2009, DICAT Uni-Ge, 26 pp.
12. Seminara G., Colombini M., Bolla Pittaluga M. & Besio G. 2009 Studio idraulico funzionale alla sistemazione del Fiume Bormida da Acqui a Confluenza Tanaro e del Torrente Orba nel tratto fasciato da Rocca Grimalda a Confluenza Bormida con definizione dei possibili scenari di intervento – Relazione finale, Luglio 2009 (Agg. Nov 2009), DICAT Uni-Ge, 119 pp.

## Technical Reports

11. Seminara G., Colombini M., Bolla Pittaluga M. & Besio G. 2008 Studio idraulico funzionale alla sistemazione del Fiume Bormida da Acqui a Confluenza Tanaro e del Torrente Orba nel tratto fasciato da Rocca Grimalda a Confluenza Bormida con definizione dei possibili scenari di intervento – Relazione intermedia, Luglio 2008, DICAT Uni-Ge, 73 pp.
10. Seminara G., Colombini M., Bolla Pittaluga M. & Besio G. 2008 Studio idraulico funzionale alla sistemazione del Fiume Bormida da Acqui a Confluenza Tanaro e del Torrente Orba nel tratto fasciato da Rocca Grimalda a Confluenza Bormida con definizione dei possibili scenari di intervento – Rapporto intermedio, Maggio 2008, DICAT Uni-Ge, 43 pp.
9. Seminara G., Colombini M., Bolla Pittaluga M. & Besio G. 2007 Studi recenti dell'AIPO sul Fiume Tanaro con particolare riferimento al rischio di esondazione nell'attraversamento della città di Alessandria: ulteriori approfondimenti, DICAT Uni-Ge, 9 pp.
8. Seminara G., Colombini M., Besio G. & Bolla Pittaluga M. 2006 Studio della propagazione nell'asta principale del Tanaro di eventi di piena statisticamente significativi, Rel. n. 16/06 DIAM Uni-Ge, 148 pp.
7. Colombini M., Rinaldo A., Seminara G., Besio G., Bolla Pittaluga M., Settin T. & Stocchino A., 2006 Studi recenti dell'AIPO sul Fiume Tanaro con particolare riferimento al rischio di esondazione nell'attraversamento della città di Alessandria, DIAM Uni-Ge & Uni-Pd, 19 pp.
6. Besio G., 2005. Efectos en la costa de Andalucia Occidental debidos a la presencia del parque eolico "Mar de Trafalgar", Informe Tecnico IT III v1 - Grupo de Puertos y Costas, Universidad de Granada, 218 pp.
5. Besio G., 2005. Analisis de la dinamica sedimentaria local dentro del campo eolico "Mar de Trafalgar", Informe Tecnico IT II v1 - Grupo de Puertos y Costas, Universidad de Granada, 100 pp.
4. Besio G., Gomez Ramos L., Avila Armella A. and Molina Sanchez R., 2004. Estudio de dinamica litoral y asesoramiento tecnico para el parque eolico "Mar de Trafalgar", Informe Tecnico IT I v1 - Grupo de Puertos y Costas, Universidad de Granada, 93 pp.
3. Besio G., Blondeaux P. and Vittori G., 2004. Task M3.2.5: Generation mechanism of sand banks. Report of the HUMOR PROJECT, 35 pp.
2. Besio G., Blondeaux P., Brocchini M., Vittori G., 2003. Task M3.2.4: Modeling of the effects of residual currents on sand wave generation. Report of HUMOR PROJECT, 25 pp.
1. Blondeaux P., Besio G., Frisina P., Brocchini M., Vittori G., 2001. Sand waves. Part 6: a simple model of tidally-generated sand waves, Internal Report, N. 1/01/CED DIAM, University of Genoa.