

PERSONAL INFORMATION

Giovanni Besio



 DICCA, Department of Civil, Chemical and Environmental Engineering, University of Genoa, Via Montallegro 1, 16145, Genoa, Italy
 +39 010 33 5 6576  +39 328 4847837
 giovanni.besio@unige.it
giospud@gmail.com
 www.dicca.unige.it/besio www.dicca.unige.it/meteocean
 Skype [giospud](https://www.skype.com/user/giospud)
 LinkedIn - <https://www.linkedin.com/in/giovanni-besio-57a001a/>
Sex Male | Date of birth 18/06/1976 | Nationality Italian

WORK EXPERIENCE

From February 2015 to Today

Associate Professor in Coastal and Harbour Engineering

Polytechnic School, University of Genoa, Italy, 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

- 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

DIAM (now DICCA), University of Genoa, Italy

- Fluid Mechanics, Morphodynamics, Turbulence

Level 8



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

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 Physical Oceanography section of Frontiers
Editorial Board Member for Journal of Marine Science and Engineering, MDPI

Advances in Water Resources
ANVUR – VQR 2010-2014
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
Engineering and Physical Sciences Research Council (EPSRC - UK)
Estuarine, Coastal and Shelf Science
European Journal of Mechanics B/Fluid
Frontiers in Marine Science
Future in Research (Regione Puglia)
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
MIUR – PRIN Projects
National Science Foundation (NSF)
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
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

- 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)
- Technical Consultant for the Genoa Court (Harbour Planning and Safety, Coastal Structures Damages, 2016-2019)
- 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
- Coordinator of the 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
- Referee for the PhD Degrees:
- Geophysics, University of Auckland, New Zealand
 - Earth Science, University of Pisa, Italy
 - Department of Infrastructure Engineering, University of Melbourne, Australia
 - Ingenieria 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
 - Environmental and Building Risk and Development, Environmental and Natural Resources, Polytechnic of Bari
 - Civil and Environmental Engineering, University of Florence
 - Fenomeni e rischi ambientali, University Parthenope, Naples

Teaching
Master and PhD Courses

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 Riqualificazione 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. 2018/19-20/21	Professor for "Renewable Energy Production", Environmental Engineering – University of Genoa
A.A. 2016/17-20/21	Full professor for "Harbour Engineering", Civil Engineering – University of Genoa
A.A. 2012/13-20/21	Full professor for "Coastal Engineering", Civil 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: researcher at JRC ISPRA)
2013 – 2017	Francesco Enrile (actual position: engineer at Acquadotti Loano)
2016 – 2020	Francesco De Leo (actual position: postdoc at CalPoly)
2018 – ongoing	Giulia Cremonini
2019 – ongoing	Stefania Magri
2019 – ongoing	Stefano Pastorino
2020 – ongoing	Manuel Corrales Gonzales

Teaching
Post Doc Students

2013-2015	Ludovica Sartini (actual position: Metocean division at RINA)
2013-2015	Saeed Hariri (actual position: researcher at IFREMER - DYNECO)
2018-2020	Francesco Enrile (actual position: engineer at Acquadotti Loano)
2018 – ongoing	Francesco Ferrari
2020 – ongoing	Andrea Lira Loarca
2020 – ongoing	Mohamad Daliri
2020 – ongoing	Alejandro Caceres

Invited Seminars

- "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 WWII 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 in the field "Fluidodynamics 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**
- 2020 Development of a wave hazard index [for ARPAL Liguria]
 - 2020 Containers' drift in the Southern Pacific Ocean [for Longitude]
 - 2019 Extreme Values Analysis for waves in the deep ocean [for MMP]
 - 2019 Study of coastal circulation and coastal flooding for the Baia del Silenzio [for Comune di Sestri Levante]
 - 2017 Wave tank experiments for Absorbing Caissons [for RINA]
 - 2017 Morphodynamics of beach nourishment in Romania [Dinamica s.r.l.]
 - 2016 Wave climate and extreme events for La Spezia Gulf [Autorità Portuale di La Spezia]
 - 2015-2020 Wave climate hindcast and analysis in the Med Sea [for different Consultancies]
 - Wave climate analysis in the Gulf Area [NMDC Abu-Dhabi]
 - Wave climate analysis in the Seuz Channel [Longitude]
 - March 2014 Fast ferry generated waves propagation to the coast [for Corsica Ferries]
 - July 2013 Offshore Mar Ligure wave climate. [for Studio Legale Farina]
 - June 2012 Physical modelling of Vernazzola (Ge) beach nourishment. [for Comune di Genova]
 - March 2012 Negative buoyant jet modelling for FPSO. [for DEAM]
 - February 2012 Implementation and validation of a wave forecast-hindcast model for the Western Mediterranean basin. [for ARPAL]
 - April - July 2011 Physical modelling of possible asbenthos releases due to slurry dumping in the port of Genoa (Ge). [for S.P.E.A.]
 - June 2010 Wave climate and coastal circulation analysis in Bagnoli-Coroglio area (Na). [for Typsa]
 - January 2008 - November 2010 Tanaro river physical modelling (fixed and mobile bed) along Alessandria city reach. [for A.I.Po]
 - March - December 2008 Flood propagation along Bormida and Orba rivers [for A.I.Po]
 - December 2007 Analysis of littoral sediment transport along the coast in the proximity of Lerone outlet (Genoa). [for S.T.I.]
 - July 2007 Hydraulic study of the last reach of Torrente Chiaravagna (Genoa). [for S.T.I.]
 - March 2007 Final design of rubble mound breakwater of Savona Harbour. [for S.T.I.]
 - February 2007 Wave climate for Ospedaletti (SV). [for Ing. Repetto]
 - Jan – Sept 2006 Study of flood propagation in the Tanaro river focussed on the city of Alessandria. [for A.I.Po]
 - Oct 2004 – Oct 2005 Study of erosion patterns at the offshore wind farm “Mar de Trafalgar”. Evaluation of the “Mar de Trafalgar” offshore wind farm influence on longshore sediment transport. [for CEAMA - I.N.R. Eolica]
 - January 2004 Analysis of littoral sediment transport along the coast in the proximity of Arenzano harbour (Genoa). [for S.T.I.]
 - November 2003 Analysis of sediment transport of the Leiro river outlet (Genoa). [for S.T.I.]
 - April 2003 Design of levees for the river Magra in the community of Ameglia (Spezia). [for S.T.I.]
 - February 2003 Preliminary design of rubble mound breakwater for the enlargement of Savona's commercial harbour. [for S.T.I.]
 - Dec 1999 - Jun 2000 Site preparation planning for power plants in Brasil (ABB Baden); drawing up of relative bills of quantities following CESSM3 rules; foundation design and steel structure check of the Manjung power plant, Malaysia, with Alstom, Velizy (Paris). Design of reinforced concrete retaining structures in Pieve Ligure (Genoa). Quality control for certification ISO 9001. [for S.T.I.]
- 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
ISYPORT - Sistema integrato per la mitigazione dei rischi della navigazione in aree portuali	PON	2020-20200	P.I.
BE-READY - Rapid Environmental Assessment Decision sYstem	DG-ECHO	2020-2021	P.I.
SINAPSI - asSistenza alla Navigazione per l'Accesso ai Porti in Sicurezza	Interreg - Marittimo European Union	2019-2021	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	2018-2020	P.I.
GEREMIA - Gestione dei reflui per il miglioramento delle acque portuali	Interreg - Marittimo European Union	2018-2020	P.I.
SPLASH! – Stop alle plastiche in H2O!	Interreg - Marittimo European Union	2018-2020	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
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

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.* <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*, <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>

International Peer Reviewed
Articles

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.
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
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
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](https://doi.org/10.1371/journal.pone.0217073)
33. Lo Re, C., Manno, G., Ciraolo, G. & Besio, G. 2019 Wave Energy Assessment around the Aegadian Islands (Sicily). *Energies*, 12, 333, [doi:10.3390/en12030333](https://doi.org/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](https://doi.org/10.1016/j.softx.2018.11.006)

International Peer Reviewed
Articles

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., Vousdoukas, 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.ocemod.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.ocemod.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., Vousdoukas, 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

International Peer Reviewed
Articles

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

60. Canale, C., Barabaro, 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 Crotone, Italy. WIT Transactions on Engineering Sciences, 129, 147-156, doi.org/10.2495/RISK200131
59. 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
58. 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
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. 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. SPLASH! - 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

International Conferences

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
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 Tyrrhenian 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 Lajz 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 Tyrrhenian 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

International Conferences

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 Tyrrhenian Sea. Coastal Engineering Proceedings, 1(34), waves-39, 13 pp.
29. Sartini, L., Mentaschi, L. & Besio, G. 2014. How an optimized meteocean modelling chain 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 Mediterranean. 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 José, 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.

International Conferences

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.
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.