

PERSONAL INFORMATION


Paolo Ciavola



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ORCID Researcher ID

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Research Gate Profile

https://www.researchgate.net/profile/Paolo_Ciavola

Sex Male | Date of birth 21/08/1964 Nationality Italian

WORK EXPERIENCE

1996- present : University of Ferrara, Italy, Department of Physics and Earth Sciences.

Full Professor of Physical Geography and Geomorphology, previously Associate Professor (2005-2018) and Lecturer (1996-2005). Tasks: teaching in Degree Courses (BSc and MSc) of Engineering, Earth Sciences, Architecture and Human Sciences (Physical Geography, Coastal Dynamics, Fluvial Dynamics, GIS and Remote Sensing, Coastal Planning, Landscape Analysis). Activities of research, supervision of postdoctoral research assistants, management tasks of EU projects (FP5, FP7, H2020). I also give supervision to Bachelor and Master thesis and PhDs. I am Erasmus Coordinator for my department.

1995-1996: Universidade do Algarve, Faro, Portugal

Research Fellow. Tasks: Working on the study of longshore transport and developing field equipment for measurements of waves, currents and suspended sediment.

1991-1996: British Geological Survey, Coastal Geology Group, Keyworth, UK

Scientific Officer (Coastal Geologist). Tasks: Working in 1991-1992 on the Marine Aggregate Survey, Phase 4-Irish Sea, commissioned by the Crown Estates and on an assessment of the geology and geomorphology of proposed routes and landfalls for Ireland to Wales direct current electricity cables.

Also working on the NERC's Land-Ocean Interaction Study (LOEPS sub-module). Duties included compilation of sub-surface geological data, data management for input into GIS systems, planning, drilling and logging of shallow boreholes and hand augers, geochemical and sedimentological analyses of salt marsh sediments. Member of the North sea Modelling Study (NORMS) Science Planning Committee for the NERC's LOIS study. Duties included science planning and refereeing of proposals for funding. Also co-ordinator of a project funded by the Environmental Know How Fund (ODA-Foreign Office) since 1994, leading to the establishment of a Coastal Geology Unit in Albania. Also consultant Coastal Geomorphologist in an Environment Impact Assessment for the construction of the new western runway of Beirut International Airport, Lebanon.

1990-1991: University of Hull, Institute of Estuarine and Coastal Studies, Hull, UK

Research Assistant. Tasks: Beach surveying, beach sampling, development and installation of wave recorders, development of a wave refraction computer model, numerical modelling of nearshore processes.

EDUCATION AND TRAINING

1995-2000: *PhD in Marine Sciences, curriculum of Marine Geology*, UNIVERSITY OF ALGARVE, FARO, PORTUGAL

Thesis: Sediment transport processes on reflective beaches: field experiments in the Algarve

1986-1990: *Laurea (M.Sc) in Geological Sciences*, UNIVERSITY OF BOLOGNA, ITALY

Classification of 110/110

Thesis: Coastal Morphodynamics of Spurn Head (UK): an example of Coastal Modelling

Driving licence Full Driving Licence (**A+B**)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient C1	Proficient C1	Proficient C1	Proficient C1	Proficient C1
Cambridge University Proficiency Certificate					
Portuguese and Spanish	Proficient C1	Proficient C1	Proficient C1	Proficient C1	Proficient C2
Diplomas of UK Institute of Linguists					

Communication skills I believe to be an effective communicator in all the languages I speak (English, Spanish, Portuguese, Italian).

I have postgraduate diplomas of linguistic competence in Portuguese and Spanish awarded by the UK Institute of linguists as well as the Certificate of Proficiency in English award by the University of Cambridge.

I have produced a documentary on the MICORE Project that can be viewed at the link below:

<https://www.youtube.com/watch?v=2zNx-b7t5sc>

Organisational / managerial skills	<p>I have considerable administrative experience as I managed as Coordinator the MICORE Project (www.micore.eu) a 3.5 million euro research project for the EU within FP7.</p> <p>I have several administrative tasks within my department: Erasmus student exchange coordinator for Earth Sciences, Member of the evaluator board for internal funding assignment (FAR Programme), member of the Quality Assurance board for research productivity (SUA and VQR assessments), member of the University Directors Board of the Centre for International Cooperation.</p> <p>I also coordinate a double master degree program between the University of Ferrara and the University of Cadiz in Spain. The program awards jointly masters in Integrated Coastal Zone Management and Geological Sciences. I coordinate for my university all administrative activities, as well as student selection at Italian level. I also teach, in Spanish, a course on coastal hazards.</p> <p>Further details are available on http://www.unife.it/studenti/internazionale/doppio-titolo/dipartimento-di-fisica-e-scienze-della-terra</p>
Job-related skills	<p>Windows and Apple operative systems, Office, ArcGIS, Q-GIS, Surfer, S-Beach model, Corel Draw, D-GPS, Echosounders, ADCP.</p> <p>I sit on the Editorial Board of the Journal of Coastal Research, Continental Shelf Research and the Journal of Integrated Coastal Zone Management of Portuguese Speaking Countries.</p> <p>Referee of the following international journals: Caribbean Journal of Science, Geo-Marine Letters, Marine Geology, International Journal of Remote Sensing, Journal of Geophysical Research, Coastal Engineering, Ocean and Coastal Management, Natural Hazard and Earth System Sciences, Journal of Risk Research, Journal of Environmental Management.</p> <p>Expert reviewer of the IPCC WGII AR5 report- Europe Chapter</p> <p>Evaluator of EU-FP7 proposals-Environment Theme and EU-Bonus (Baltic Sea research proposals)</p> <p>Evaluator of EU-COST Proposals</p> <p>Evaluator of FCT (Portuguese Science Foundation) proposals</p> <p>Evaluator of NERC (Natural Environment Research Council) UK proposals</p> <p>Member of the IOC-UNESCO working Group on Coastal Risk</p>
Memberships	<p>Chartered UK Geologist, EuroGeologist, Member of the European Geosciences Union (EGU)</p>
References	<p>Available on request, may include previous employers in UK, Portugal, Academics colleagues in Italy, Europe, USA and Australia, officials of the European Union and of organizations of the United Nations (International Oceanographic Commission and World Meteorological Organization)</p>

Publications 22 book chapters in international and national books
84 papers in referred journals
Editor of 4 Special Issues of International Journals (Journal of Coastal Research, Geomorphology, Natural Hazards and Earth System Sciences)
Editor/author of 2 books
63 Contributions to international and national congresses
25 Technical and Scientific Reports and 1 map.

Google Scholar Profile

<https://scholar.google.it/citations?user=5XSNO1YAAAAJ>

ORCID Researcher ID

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Research Gate Profile

https://www.researchgate.net/profile/Paolo_Ciavola

Coastal Study Unit Ferrara (COSTUF) webpage

<http://fst.unife.it/ricerca/aree-di-ricerca-1/costuf>

Coastal Study Unit Ferrara (COSTUF) facebook page

<https://www.facebook.com/COSTUFgroup/>

PRINCIPAL INVESTIGATOR IN EU-FUNDED PROJECT**EU FP-VI, VII and H2020**

FP-VI HYDRALAB III- GWK- Hannover

Coordinator of the project HYIII-GWK-05 Experiments on Sediment Depth of Disturbance for beaches under the influence of Drainage Systems (ESDODDS).

FP-VI HYDRALAB III CIEM- Barcelona

Scientist in charge of the University of Ferrara the project HYIII- UPC-06 Swash zone response Under grouping Storm Conditions (SUSCO)

FP-VII MICORE Project <http://www.micore.eu/>

Coordinator of the project MICORE (Morphological Impacts and COastal Risks induced by Extreme storm events) (started 01/06/2008, contract n° 202798-40 months)

FP-VII ConHaz Project <http://conhaz.org/>

WorkPackage Leader (WP7 Costs of storms and coastal risks) in the project ConHaz (Costs of Natural Hazards) (started 01/02/2010, contract n° 244159-24 months)

FP-VII RISC-KIT Project <http://www.risckit.eu>

WorkPackage Leader (WP1 Database of Historical Storms) in the project RISC-KIT (Resilience-Increasing Strategies for Coasts-toolKIT) (started 01/11/2014, contract n° 603458-42 months)

H2020 ANYWHERE Project <http://anywhere-h2020.eu>

Task Leader (Task 2.3 Nowcasting and forecasting algorithm to assess storm surges Impacts) in the project ANYWHERE (EnhANCing emergencY management and response to extreme WeatHER and climate Events) (start date 01/06/2016, contract DRS-01-2015: 700099-39 months)

Previous frameworks

- Feed-backs of Estuarine Circulation and Transport of Sediments on Phytobenthos (F-ECTS), EU -MAST.
- Sediment and Water Movement in Industrialised Estuarine Environments (SWAMIEE), EU -TMR.
- Rationale for Integrated Coastal Area Management (RICAMA), EU -LIFE.
- Assessing the stability of mudflat surfaces by mapping sediment characteristics and extremely sparse vegetation and algae cover with hyperspectral imaging (HYSENS), EU -Access to Large Scale Facilities.
- PRediction Of The Erosion of Cluffed Terrains (PROTECT), EU -FP5.
- The COASTVIEW Project, EU-FP5.

MOST SIGNIFICANT PUBLICATIONS

International Journals

1. Fernández-Montblanc, T., Gómez-Enri, J., & **Ciavola, P.** (2020). The Role of Mean Sea Level Annual Cycle on Extreme Water Levels Along European Coastline. *Remote Sensing*, 12(20), 3419. [10.3390/rs12203419](https://doi.org/10.3390/rs12203419)
2. Duo, E., Sanuy, M., Jiménez, J. A., & **Ciavola, P.** (2020). How good are symmetric triangular synthetic storms to represent real events for coastal hazard modelling. *Coastal Engineering*, 103728. <https://doi.org/10.1016/j.coastaleng.2020.103728>
3. Grottoli, E., Cilli, S., **Ciavola, P.**, & Armaroli, C. (2020). Sedimentation at River Mouths bounded by Coastal Structures: A Case Study along the Emilia-Romagna Coastline, Italy. *Journal of Coastal Research*, 95(sp1), 505-510. <https://doi.org/10.2112/SI95-098.1>
4. Fernández-Montblanc, T., Duo, E., & **Ciavola, P.** (2020). Dune reconstruction and revegetation as a potential measure to decrease coastal erosion and flooding under extreme storm conditions. *Ocean & Coastal Management*, 105075. <https://doi.org/10.1016/j.ocecoaman.2019.105075>
5. Fernández-Montblanc, T., Vousedoukas, M. I., Mentaschi, L., & **Ciavola, P.** (2020). A Pan-European high resolution storm surge hindcast. *Environment International*, 135, 105367. <https://doi.org/10.1016/j.envint.2019.105367>
6. Brunetta, R., **Ciavola, P.**, & De Paiva, J. S. (2019). Morphological evolution of an intertidal area following a set-back scheme: a case study from the Perkpolder Basin (The Netherlands). *Frontiers in Earth Science*, 7, 228. <https://doi.org/10.3389/feart.2019.00228>

7. Grottoli, E., & **Ciavola, P.** (2019). The role of detailed geomorphic variability in the vulnerability assessment of potential oil spill events on mixed sand and gravel beaches: the cases of two Adriatic sites. *Frontiers in Earth Science*, 7, 242. <https://doi.org/10.3389/feart.2019.00242>
8. Schippa, L., Cilli, S., **Ciavola, P.**, & Billi, P. (2019). Dune Contribution to Flow Resistance in Alluvial Rivers. *Water*, 11(10), 2094. <https://doi.org/10.3390/w11102094>
9. Grottoli, E., Bertoni, D., Pozzebon, A., & **Ciavola, P.** (2019). Influence of particle shape on pebble transport in a mixed sand and gravel beach during low energy conditions: Implications for nourishment projects. *Ocean & Coastal Management*, 169, 171-181. doi: <https://doi.org/10.1016/j.ocecoaman.2018.12.014>
10. Fernández-Montblanc, T., Vousedoukas, M. I., **Ciavola, P.**, Voukouvalas, E., Mentaschi, L., Breyiannis, G., ... & Salamon, P. (2019). Towards robust pan-European storm surge forecasting. *Ocean Modelling*, 133, 129-144. doi: <https://doi.org/10.1016/j.ocemod.2018.12.001>
11. Sanuy, M., Duo, E., Jäger, W. S., **Ciavola, P.**, and Jiménez, J. A. (2018). Linking source with consequences of coastal storm impacts for climate change and risk reduction scenarios for Mediterranean sandy beaches, *Nat. Hazards Earth Syst. Sci.*, 18, 1825-1847, <https://doi.org/10.5194/nhess-18-1825-2018>.
12. Duo, E., Trembanis, A. C., Dohner, S., Grottoli, E., & **Ciavola, P.** (2018). Local-scale post-event assessments with GPS and UAV-based quick-response surveys: a pilot case from the Emilia–Romagna (Italy) coast. *Natural Hazards & Earth System Sciences*, 18(11). doi: <https://www.nat-hazards-earth-syst-sci.net/18/2969/2018/>
13. Pratellesi, M., **Ciavola, P.**, Ivaldi, R., Anthony, E. J., Armaroli, C. (2018). River-mouth geomorphological changes over 135 years (1882–2014) in a small Mediterranean delta: Is the Magra delta reverting to an estuary?. *Marine Geology*. doi: <https://doi.org/10.1016/j.margeo.2018.06.003>
14. Novák-Szabó, T., Sipos, A. Á., Shaw, S., Bertoni, D., Pozzebon, A., Grottoli, E., Sarti, G., **Ciavola, P.**, Domokos, G., Jerolmack, D. J. (2018). Universal characteristics of particle shape evolution by bed-load chipping. *Science Advances*, eaao4946, doi: 10.1126/sciadv.aao4946
15. Van Dongeren, A., **Ciavola, P.**, Martinez, G., Viavattene, C., Bogaard, T., Ferreira, O., ... & McCall, R. (2018). Introduction to RISC-KIT: Resilience-increasing strategies for coasts. *Coastal Engineering*, 134, 2-9. doi: <https://doi.org/10.1016/j.coastaleng.2017.10.007>
16. Garnier, E., **Ciavola, P.**, Spencer, T., Ferreira, O., Armaroli, C., & McIvor, A. (2018). Historical analysis of storm events: Case studies in France, England, Portugal and Italy. *Coastal Engineering*, 134, 10-23. doi: <http://dx.doi.org/10.1016/j.coastaleng.2017.06.014>
17. **Ciavola, P.**, Harley, M. D., & den Heijer, C. (2018). The RISC-KIT storm impact database: a new tool in support of DRR. *Coastal Engineering*, 134, 24-32. doi: <https://doi.org/10.1016/j.coastaleng.2017.08.016>
18. Ninfo A, **Ciavola P.**, Billi, P. (2018). The Po Delta is restarting progradation: geomorphological evolution based on a 47-years Earth Observation dataset. *Scientific Reports*, doi: 10.1038/s41598-018-21928-3
19. Billi, P., Salemi, E., Preciso, E., **Ciavola, P.**, & Armaroli, C. (2017). Field measurement of bedload in a sand-bed river supplying a sediment starving beach. *Zeitschrift für Geomorphologie*, 61(3), 207-223, doi: <https://doi.org/10.1127/zfg/2017/0466>
20. Grottoli, E., Bertoni, D., & **Ciavola, P.** (2017). Short-and medium-term response to storms on three Mediterranean coarse-grained beaches. *Geomorphology*, 295, 738-748, doi: <https://doi.org/10.1016/j.geomorph.2017.08.007>
21. Bertoni, D., Sarti, G., Grottoli, E., **Ciavola, P.**, Pozzebon, A., Domokos, G., & Novák-Szabó, T. (2016). Impressive abrasion rates of marked pebbles on a coarse-clastic beach within a 13-month timespan. *Marine Geology*, 381, 175-180. doi: <http://dx.doi.org/10.1016/j.margeo.2016.09.010>
22. Brown, J. M., **Ciavola, P.**, Masselink, G., McCall, R., and Plater, A. J. (2016): Preface: Monitoring and modelling to guide coastal adaptation to extreme storm events in a changing climate, *Nat. Hazards Earth*

- Syst. Sci., 16, 463–467, doi:10.5194/nhess-16-463-2016.
23. Harley, M. D., Valentini, A., Armaroli, C., Perini, L., Calabrese, L., and **Ciavola, P.** (2016): Can an early warning system help minimize the impacts of coastal storms? A case study of the 2012 Halloween storm, Northern Italy, *Nat. Hazards Earth Syst. Sci.*, 16, 209–222, doi: 10.5194/nhess-16-209-2016.
 24. Perini, L., Calabrese, L., Salerno, G., **Ciavola, P.**, and Armaroli, C. (2016). Evaluation of coastal vulnerability to flooding: comparison of two different methodologies adopted by the Emilia-Romagna region (Italy), *Nat. Hazards Earth Syst. Sci.*, 16, 181-194, doi:10.5194/nhess-16-181-2016.
 25. Grottoli, E., Bertoni, D., **Ciavola, P.**, and Pozzebon, A. (2015). Short term displacements of marked pebbles in the swash zone: Focus on particle shape and size. *Marine Geology*, 367, 143-158. doi:10.1016/j.margeo.2015.06.006
 26. Nordstrom, K.F., Armaroli, C., Jackson, N.L., **Ciavola, P.** (2015). Opportunities and constraints for managed retreat on exposed sandy shores: Examples from Emilia-Romagna, Italy, *Ocean & Coastal Management*, 104, pp. 11-21. doi:10.1016/j.ocecoaman.2014.11.010
 27. Taramelli, A., Di Matteo, L., **Ciavola, P.**, Guadagnano, F., and Tolomei, C. (2015). Temporal evolution of patterns and processes related to subsidence of the coastal area surrounding the Bevano River mouth (Northern Adriatic)–Italy. *Ocean & Coastal Management*, 108, 74-88, doi:10.1016/j.ocecoaman.2014.06.021
 28. Kreibich, H., van den Bergh, J. C., Bouwer, L. M., Bubeck, P., **Ciavola, P.**, Green, C., ... and Thieken, A. H. (2014). Costing natural hazards. *NATURE CLIMATE CHANGE*, 4(5), 303-306, doi:10.1038/nclimate2182
 29. Van Dongeren A.R., **Ciavola P.**, Viavattene C. et al. (2014) RISC-KIT: Resilience-Increasing Strategies for Coasts – toolkit. *JOURNAL OF COASTAL RESEARCH*, Special Issue No. 70, 366–371.
 30. Harley, M. D., Andriolo, U., Armaroli, C., & **Ciavola, P.** (2013). Shoreline rotation and response to nourishment of a gravel embayed beach using a low-cost video monitoring technique: San Michele-Sassi Neri, central Italy. *J COAST CONSERV.* doi:10.1007/s11852-013-0292-x
 31. **Ciavola P.**, Contestabile P., Aristodemo F., Vicinanza D. (2013). Beach sediment mixing under drained and undrained conditions. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1503- 1508 Vol. SI65.
 32. Bertoni, D., Grottoli, E., **Ciavola, P.**, Sarti, G., Benelli, G., and Pozzebon, A. (2013). On the displacement of marked pebbles on two coarse-clastic beaches during short fair-weather periods (Marina di Pisa and Portonovo, Italy). *Geo-Marine Letters*, 33(6), 463-476. doi: 10.1007/s00367-013-0341-3
 33. **Ciavola P.**, Jimenez J.A. (2013). The record of marine storminess along European coastlines. *NATURAL HAZARDS AND EARTH SYSTEM SCIENCES* (ISSN:1684-9981) pp.1999- 2002 Vol.13, doi:10.5194/nhess-13-1999-2013.
 34. Armaroli C., Grottoli E., Harley M.D., **Ciavola P.** (2013). Beach morphodynamics and types of foredune erosion generated by storms along the Emilia-Romagna coastline, Italy. *Geomorphology*, 199, 22- 35, doi:10.1016/j.geomorph.2013.04.034.
 35. Meyer, V., Becker, N., Markantonis, V., Schwarze, R., van den Bergh, J. C. J. M., Bouwer, L. M., Bubeck, P., **Ciavola, P.**, Genovese, E., Green, C., Hallegatte, S., Kreibich, H., Lequeux, Q., Logar, I., Papyrakis, E., Pfurtscheller, C., Poussin, J., Przulski, V., Thieken, A. H., and Viavattene, C. (2013): Review article: Assessing the costs of natural hazards – state of the art and knowledge gaps, *Nat. Hazards Earth Syst. Sci.*, 13, 1351-1373, doi:10.5194/nhess-13-1351-2013
 36. Harley M., **Ciavola P.** (2013). Managing local coastal inundation risk using real-time forecasts and artificial dune placements. *Coastal Engineering*, 77, pp. 77- 90, doi:10.1016/j.coastaleng.2013.02.006.
 37. Armaroli C., **Ciavola P.**, Perini L., Calabrese L., Lorito S., Valentini A., Masina M. (2012). Critical storm thresholds for significant morphological changes and damage along the Emilia-Romagna coastline, Italy. *Geomorphology*, 143-144, pp. 34- 51, doi:10.1016/j.geomorph.2011.09.006.

38. Contestabile P., Aristodemo F., Vicinanza D., **Ciavola P.** (2012). Laboratory study on a beach drainage system. *Coastal Engineering*, 66, pp. 50- 64, doi:10.1016/j.coastaleng.2012.03.012
39. **Ciavola P.**, Stive M.J.F. (2012). Thresholds for storm impacts along European coastlines: Introduction. *Geomorphology*, 143-144, pp. 1- 2, doi:10.1016/j.geomorph.2011.10.002.
40. Armaroli, C., **Ciavola, P.** (2011). Dynamics of a nearshore bar system in the northern Adriatic: a video-based morphological classification. *Geomorphology*, 126, pp. 201- 216, doi:10.1016/j.geomorph.2010.11.004
41. **Ciavola P.**, Vicinanza D., Aristodemo F., Contestabile P. (2011). Large-scale morphodynamic experiments on a beach drainage system. *JOURNAL OF HYDRAULIC RESEARCH* (ISSN:0022-1686) pp. 523- 528 Vol.49.
42. Vicinanza D., Baldock T., Contestabile P., Alsina J., Caceres I., Brocchini M., Conley D., Andersen T.L., Frigaard P., **Ciavola P.** (2011). Swash zone response under grouping storm conditions. *JOURNAL OF HYDRAULIC RESEARCH* (ISSN:0022-1686) pp. 55- 63 Vol.49.
43. **Ciavola P.**, Ferreira O., Haerens P., Van Koningsveld M., Armaroli C., Lequeux Q. (2011). Storm impacts along European coastlines. Part 1: The joint effort of the MICORE and ConHaz Projects. *Environmental Science & Policy*, 14, pp. 912- 923, doi:10.1016/j.envsci.2011.05.011.
44. **Ciavola P.**, Ferreira O., Haerens P., Van Koningsveld M., Armaroli, C. (2011). Storm impacts along European coastlines. Part 2: lessons learned from the MICORE project. *Environmental Science & Policy*, 14, pp. 924- 933, doi:10.1016/j.envsci.2011.05.009.
45. Aristodemo F. , **Ciavola P.** , Veltri P., Saponieri A. (2011). The influence of a Beach Drainage System on wave reflection and surf beat processes. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 455- 459 Vol.SI 64.
46. Sedrati M., **Ciavola P.**, Armaroli C. (2011). Morphodynamic evolution of a microtidal barrier, the role of overwash: Bevano, Northern Adriatic Sea. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 696- 700 Vol.SI 64.
47. Harley M., Armaroli C., **Ciavola P.** (2011). Evaluation of XBeach predictions for a real-time warning system in Emilia-Romagna, Northern Italy. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1861- 1865 Vol.SI 64.
48. Vicinanza D., Guida A., Ferrante V., **Ciavola P.** (2010). Performance of a beach dewatering system- Chiaiolella Beach, Procida Island, Italy. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 753- 761 Vol.26.
49. J.A. Jiménez, P. **Ciavola**, Y. Balouin, C. Armaroli, E. Bosom, M. Gervais (2009). Geomorphic coastal vulnerability to storms in microtidal fetch-limited environments: Application to NW Mediterranean & N Adriatic Seas. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1641- 1645 Vol.SI 56.
50. Vicinanza D., **Ciavola P.**, Biagi S. (2009). Field experiment to control coastline subsidence: a unique case study at Lido Adriano (Italy). *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1105- 1109 Vol.SI56.
51. **Ciavola P.**, Castiglione E. (2009). Sediment dynamics of mixed sand and gravel beaches at short time-scales. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1751- 1755 Vol.SI56.
52. C. Armaroli, P. **Ciavola**, M. Masina, L. Perini (2009). Run-up computation behind emerged breakwaters for marine storm risk assessment. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1612- 1616 Vol.SI 56.
53. Ó. Ferreira, P. **Ciavola**, C. Armaroli, Y. Balouin, J. Benavente, L. Del Río, M. Deserti, L.S. Esteves, K. Furmanczyk, P. Haerens, A. Matias, L. Perini, R. Taborda, P. Terefenko, E. Trifonova, K. Trouw, N. Valchev, A. Van Dongeren, M. Van Koningsveld, J.J. Williams (2009). Coastal Storm Risk Assessment in Europe: Examples from 9 study sites. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 1632- 1636 Vol.SI 56.

54. M. Sedrati, P. **Ciavola**, J. Reyns, C. Armaroli, V. Sipka (2009). Morphodynamics of a microtidal protected beach during low wave-energy conditions. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 198- 202 Vol.SI 56.
55. Jimenez JA, Osorio A, Marino-Tapia I, Davidson M, Medina R, Kroon A, Archetti R, P. **Ciavola**, Aarnikhof S.G.J. (2007). Beach recreation planning using video-derived coastal state indicators. *Coastal Engineering*, 54, pp. 507- 521 , doi:10.1016/j.coastaleng.2007.01.012.
56. P. **Ciavola**, Armaroli C, Chiggiato J, Valentini A, Deserti M, Perini L. And Luciani P (2007). Impact of storms along the coastline of Emilia-Romagna: the morphological signature on the Ravenna coastline (Italy). *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 540- 544 Vol.SI 50.
57. Armaroli C., **Ciavola** P, Balouin Y, Gatti M. (2006). An integrated study of shoreline variability using GIS and ARGUS techniques.. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 473- 477 Vol.39.
58. Balouin Y, **Ciavola** P., Michel D (2006). Support of subtidal tracer studies to quantify the complex morphodynamics of a river outlet: the Bevano, NE Italy.. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 602- 607 Vol.SI 39.
59. **Ciavola** P. (2005). Sediment resuspension in the Lagoon of Venice: short-term observations of natural and anthropogenic processes. *ZEITSCHRIFT FUR GEOMORPHOLOGIE. SUPPLEMENTBAND* (ISSN:0044-2798) pp. 1- 15 Vol.141.
60. Neumeier U., **Ciavola** P. (2004). Flow resistance and associated sedimentary processes in a *Spartina maritima* salt-marsh. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 435- 447 Vol.20.
61. Balouin Y., **Ciavola** P., Anfuso G., Armaroli C., Corbau C., Tessari U. (2004). Morphodynamics of intertidal sand bars: field studies in the northern Adriatic, NE Italy. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 323- 328 Vol.39.
62. Gonzales R., **Ciavola** P., Corbau C., Falati S., Ferreira O. (2004). Mixing depth experiments on an estuarine beach, St. Georges Beach, Gironde (France). *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 43- 52 Vol.Special Issue 41.
63. Vila-Concejo A., Ferreira O., **Ciavola** P., Matias A., Dias J. (2004). Tracer studies on the updrift margin of a complex inlet system. *Marine Geology*, 208, pp. 43- 72, doi:10.1016/j.margeo.2004.04.020
64. Friend P.L., **Ciavola** P., Cappucci S., Santos R. (2003). Bio-dependent bed parameters as a proxy tool for sediment stability in mixed habitat intertidal areas. *Continental Shelf Research*, 23, 1899-1917, doi:10.1016/j.csr.2002.12.001.
65. **Ciavola** P., Organo C., Leon Vintro L., Mitchell P.I. (2002). Sedimentation processes on intertidal areas of the Lagoon of Venice: identification of exceptional flood events (acqua alta) using radionuclides. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 139- 147 Vol.SI 36.
66. Phaneuf B, **Ciavola** P, Papatheodorou G, Ferentinos G (2002). Ionian Sea Study. *THE INA QUARTERLY* (ISSN:1090-2635) pp. 28- 29 Vol.29.
67. Corbau C., **Ciavola** P., Gonzalez R., Ferreira O. (2002). Measurements of cross-shore sand fluxes on a macrotidal pocket beach (Saint-Georges Beach, Atlantic Coast, SW France). *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 182- 189 Vol.SI 36.
68. Ferreira O., **Ciavola** P., Taborda R., Bairros M., Dias J.M.A. (2000). Sediment mixing depth determination for steep and gentle foreshores. *JOURNAL OF COASTAL RESEARCH* (ISSN:0749-0208) pp. 830- 839 Vol.16.
69. **Ciavola** P., Mantovani F., Simeoni U., Tessari U. (1999). Relationship between river dynamics and coastal changes in Albania: an assessment integrating satellite imagery with historical data. *International Journal Of Remote Sensing*, 20, pp. 561- 584 , doi:10.1080/014311699213343
70. Taborda R, **Ciavola** P., Ferreira, Dias J.A (1999). Measurements of suspended sediment transport on a

reflective meso-tidal beach in southern Portugal. BOLETIN DEL INSTITUTO ESPANOL DE OCEANOGRAFIA (ISSN:0074-0195) pp. 229- 241 Vol.15.

71. **Ciavola P.**, Tessari U, Mantovani F, Simeoni U (1998). Evaluation of floodplain changes and geomorphological mapping of the coastal zone plain of Myzeq (Albania) using Landsat TM imagery. ANNALES GEOPHYSICAE (ISSN:0992-7689) pp. C1214- ** Vol.Supplement 4 to volume 16.
72. Ferreira O., Bairros M., Pereira H., **Ciavola P.**, Alveirinho Dias (1998). Mixing depth levels and distribution on steep foreshores. JOURNAL OF COASTAL RESEARCH (ISSN:0749-0208) pp. 292- 296 Vol.SI 26.
73. **Ciavola P.**, Dias N., Taborda R., Ferreira O., Alveirinho Dias J. (1998). Fluorescent sands for measurements of longshore transport rates: a case study from Praia de Faro in southern Portugal. Geo-Marine Letters, 18, pp.49- 57, doi: 10.1007/s003670050051
74. **Ciavola P.** (1997). Coastal Dynamics and Impact of Coastal Protection Works on the Spurn Head Spit (United Kingdom). Catena 30, pp.369- 389, doi:10.1016/S0341-8162(97)00011-8
75. **Ciavola P.**, Taborda R., Ferreira O., Alveirinho Dias (1997). Field observations of sand-mixing depths on steep beaches. Marine Geology 141, pp. 147- 156, doi:10.1016/S0025-3227(97)00054-6
76. **Ciavola P.**, Taborda R., Ferreira O., Alveirinho Dias (1997). Field Measurements of Longshore Sand Transport and Control Processes on a Steep Meso-Tidal Beach. JOURNAL OF COASTAL RESEARCH (ISSN:0749-0208) pp. 1119- 1129 Vol.13.

International Book Chapters

1. Cilli, S., Billi, P., Schippa, L., Grottoli, E., and **Ciavola, P.** (2020). Bedload Transport Processes in a Coastal Sand-Bed River: The Study Case of Fiumi Uniti River in the Northern Adriatic. In: Mathematical Approach to Climate Change and its Impacts, (pp. 133-145). Springer, Cham.
2. **Ciavola P.**, Ferreira O., Van Dongeren A, Van Thiel de Vries J., Armaroli C and Harley M. (2014). Prediction of Storm Impacts on Beach and Dune Systems. In: Hydrometeorological Hazards: Interfacing Science and Policy, First Edition. Edited by Philippe Quevauviller. 2015 John Wiley & Sons, Ltd. pp. 227- 252.
3. Volker Meyer, Reimund Schwarze, Nina Becker, Vasileios Markantonis, Jeroen C.J.M. van den Bergh, Laurens M. Bouwer, Philip Bubeck, **Paolo Ciavola**, Elisabetta Genovese, Colin Green, Stephane Hallegatte, Heidi Kreibich, Quentin Lequeux, Ivana Logar, Elissaios Papyrakis, Clemens Pfuertscheller, Jennifer Poussin, Valentin Przyluski, Annegret H. Thieken and Christophe Viavattene (2014). Assessing the Costs of Natural Hazards – State of the Art and the Way Forward . In: Hydrometeorological Hazards: Interfacing Science and Policy, First Edition. Edited by Philippe Quevauviller. 2015 John Wiley & Sons, Ltd. pp. 255-290.
4. **Ciavola P** (2010). Italy. In: Bird ECF, Encyclopedia of the world's coastal landforms. Springer Science and Business Media, DORDRECHT, NL pp.719- 729
5. **Ciavola P** (2010). Sicily. In: Bird ECF, Encyclopedia of the world's coastlines. Springer Science and Business Media, DORDRECHT, NL, pp.741- 749
6. **Ciavola P.**, Armaroli C., Perini L., Luciani P. (2008). Evaluation of maximum storm wave run-up and surges along the Emilia-Romagna coastline (NE Italy): A step towards a risk zonation in support of local CZM strategies. Integrated Coastal Zone Management - The Global Challenge. Research Publishing Services, Singapore: SINGAPORE pp. 505- 516.

7. **Ciavola P.** (2004). Tracers. In: Schwartz M., Encyclopedia of Coastal Sciences. Kluwer Academic Publishers, DORDRECHT, NL, pp.1 253- 1258.
8. **Ciavola P.**, Tessari U., Mantovani F., Marzotto M., Simeoni U. (2000). Coastal Zone Geomorphological Mapping using Landsat TM imagery: an Application in Central Albania. In: Buchroithner M.F., Remote Sensing for Environmental Data in Albania: a Strategy for Integrated Management. Kluwer Academic Publisher, DORDRECHT, NL, pp.153- 163.
9. Simeoni U., Pano N., **Ciavola P.** (1997). The coastline of Albania: morphology, evolution and coastal management issues. In: Briand F., Maldonado A., Evolution des côtes méditerranéennes. Commission Internationale pour l'Exploration Scientifique, MONACO: MONACO pp. 151- 168.
10. **Ciavola P.**, Taborda R, Ferreira, Alveirinho Dias J (1996). Longshore Sand Transport: a Comparison between Field Observations and Predictions of Numerical Models and Implication for Coastal Erosion Studies. In: Taussik J., Mitchell J., Partnership in Coastal Zone Management. Samara Publishing Limited, CARDIGAN, UK pp. 185- 193.
11. Simeoni U, Calderoni G, Setti M, **Ciavola P.**, Zamariolo A (1996). The Coastline of Durrës Bay (Albania): Geomorphology, Sediment Dynamics and Coastal Management Issues. In: Taussik J., Mitchell J., Partnership in Coastal Zone Management. Samara Publishing Limited, CARDIGAN: UK, pp. 309- 316.
12. **Ciavola P.**, Simeoni U (1995). A review of the Coastal Geomorphology of Karavasta Lagoon (Albania): Short Term Coastal Change and Implications for Coastal Conservation. In: Healy M.G., Doody J.P., Directions in European Coastal Management. Samara Publishing Limited, CARDIGAN: UK, pp.301- 316.
13. **P. Ciavola** (1993). Nearshore Resources and Process Studies - Their application to European Coastal Management. In: Della Croce Et Al., Coastal Ocean Space Utilization III. Routledge, LONDON: UK pp.501- 516.

Editorship of Special Issues of International Journals

1. Monitoring and modelling to guide coastal adaptation to extreme storm events in a changing climate, Nat. Hazards Earth Syst. Sci., 16
2. The record of marine storminess along European coastlines. Nat. Hazards Earth Syst. Sci., 13
3. Thresholds for storm impacts along European coastlines. Geomorphology, 143-144
4. Sediment Transport in European Estuarine Environments. Journal of Coastal Research (ISSN:0749-0208) Special Issue 41.

Books

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Ferrara, 30/11/2020

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