

PERSONAL INFORMATION

Matteo Vacchi

 Dipartimento di Scienze della Terra, Università di Pisa
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 <https://scholar.google.com/citations?user=y-Ej-ZYAAAAAJ&hl=it>

ORCID ID <https://orcid.org/0000-0002-1569-7862>

Date of birth 21/01/1982 | Nationality Italian

Current Position Associate Professor at the University of Pisa

RESEARCH INTERESTS

Summary

Matteo Vacchi is a coastal geomorphologist and his research is mainly focused on the Quaternary evolution of the coastal zones and on the impacts of global change on both landscape evolution and ecological assemblages of littoral areas. His current fields of interest are on palaeo-environmental reconstructions, late Quaternary sea level changes, geoarchaeology, marine biogeomorphology as well as geologic and geomorphologic mapping of marine and coastal areas.

After his Phd obtained in 2012 at the University of Genova, he moved to France as postdoctoral researcher (University of Aix-Marseille and Montpellier III, 2013-2017) and in the UK where he served as Lecturer at the University of Exeter (UK) in 2017-2018.

In 2019, he was awarded with the Rita Levi Montalcini fellow, an Italian financial scheme to re-attract young scientists in Italy. For this reason, he moved to the University of Pisa in January 2019.

His on-going projects and collaborations are centred on the multiproxy reconstructions of the coastal systems evolution in the last millennia in order to better assess the future of coastal environments in the context of the climate change. On these topics, he authored and co-authored 78 ISI papers since 2010.

He is currently involved in several research activities along the Atlantic, Mediterranean, Pacific, Persian and Caribbean coasts. He is the team leader of the INQUA working group MOPP-Medflood (modelling palaeo processes) and in January 2019 he was elected vice president of the INQUA coastal and marine processes (CMP) commission.

Bibliometric Indicators

SCOPUS: h-index 31, citations 2765, documents 87

Google Scholar: h-index 34, citations 3547, i10-index 59

WORK EXPERIENCE

From 01/01/2022 to today

Professore Associato

Dipartimento di Scienze della Terra, Università di Pisa

- Definition of future coastal risks at global and regional scales
- Teaching and mentoring activities

From 2019 to 2021

Ricercatore a tempo determinato di tipo B

Dipartimento di Scienze della Terra, Università di Pisa

- Definition of future coastal risks along the western African coasts
- Teaching and mentoring activities

From 2017 to 2019

Lecturer in Physical Geography

School of Environmental Sciences, University of Exeter (UK)

- Multiproxy reconstruction of Sea-level changes in Eastern Canada
- Teaching and mentoring activities

From 2016 to 2017

Postdoctoral research fellow

Université Paul Valéry Montpellier 3 (France)

- Paleoenvironmental reconstructions of Mediterranean coastal landscapes

From 2013 to 2016 ■ **Postdoctoral research fellow**

Aix-Marseille Université CNRS CEREGE (France)

- Multiproxy reconstruction of Sea-level changes and coastal risks along the Mediterranean coastlines

EDUCATION AND TRAINING

2007 **Laurea Magistrale in Scienze Geologiche**

Università di Genova

- Tesi sperimentale: "Rapporti tra l'idrodinamica litorale e lo sviluppo delle praterie di Posidonia oceanica".

2012 **Dottorato di ricerca in Scienze della Terra**

Università di Genova

- Tesi sperimentale: "Coastal geomorphology of Lesbos Island, processes, late-Quaternary evolution and the neotectonic implications" (European Phd Label)

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

	COMPRESIONE		PARLATO		PRODUZIONE SCRITTA
	Ascolto	Lettura	Interazione	Produzione orale	
English	B2	C1	B2	B2	C1
French	C2	C2	C2	C2	C2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

INSTITUTIONAL RESPONSIBILITIES

2019-today Vice president of the INQUA Coastal and marine Processes commission

Coordination of the INQUA project and focus groups

2015-2017 Coordinator of the young scientist of the EGU Ocean division

2010-2016 Founder and associate of SEAMap srl Environmental consultancy, Italy. SEAMap srl was a spin-off of the University of Genoa, born to apply innovative technologies to coastal areas in the fields of mapping of marine areas and environmental consulting and planning. It was operative between 2010 and 2016.

2016-2020 Team Leader of the INQUA International Focus Group, MOPP-Medflood: Modelling Paleo Processes (1603P)

NATIONAL AND INTERNATIONAL GRANTS (as principal investigator)

2019-2021 Principal investigator of the Rita Levi Montalcini fellowship (2019-2022) funded by the Italian Agency for Research (MIUR). Future sea level rise scenarios in mid-Western Africa. Reconstructing the past to predict the future. Budget 210'000 Euro

2020-2023 Principal investigator of the Progetto SealData (MUR PNRA). Sea level reconstruction in western Antarctica. 66000 Euro

2013-2015 Principal investigator of the ANR (Agence nationale de recherche, France) of MEDMAX, Mediterranean Sea Level maximum, 65000 Euro

TEACHING ACTIVITY

- 2019-now In charge of the modules of “Evoluzione e gestione della Costa” e “Rischio Costiero” in the frame of the master course of Environmental science and Geological sciences of the University of Pisa, respectively.
- 2017-2019 In charge of the module “Evolution and management of the coastal zones” in the frame of the bachelor in Physical Geography of the University of Exeter (UK)
- 2012-2now Tutor of more than 20 final dissertations at the University of Genova, University of Exeter and University of Pisa

ORGANIZATION OF SCIENTIFIC MEETINGS (in the last 10 years)

- 2019 Director of the EGU Inqua summer school “Coche, coastal changes and evolution”. Oristano, Sardinia.

FURTHER INFORMATION

- Memberships
- INQUA since 2012
 - EGU since 2016
- Evaluation of research results
- Revisore di articoli per le riviste internazionali: Nature Climate Change, Scientific Reports, Geomorphology, Earth Planet. Sci. Lett., Natural Hazard, Marine Geology, Quaternary International
 - Revisore di progetti per le agenzie: MIUR, Israel Research Foundation, ANR France, NSF, Austrian Research Promotion Agency (FFG).

ATTACHMENT

- List of the top publications in the main research field (in the last ten years)
- Personal data According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Date: Pisa , 3 July 2023

Signature: Matteo Vacchi

List of selected publications

- Mattei and VACCHI, 2023. The geographic variability of the millennial sea-level changes along the coasts of Italy. *Alpine and Mediterranean Quaternary* 36 (1), 63-74
- VACCHI et al., 2022. Climatic control on the formation of marine-notches in microtidal settings: New data from the northwestern Mediterranean Sea. *Marine Geology*, 453, 106929.
- VACCHI et al. 2021. Climate pacing of millennial sea-level change variability in the central and western Mediterranean. *Nature communications*, 12(1), 1-9.
- VACCHI et al. 2020. Driving mechanisms of Holocene coastal evolution in the Bonifacio Strait (Western Mediterranean). *Marine Geology*, 427, 106265.
- VACCHI et al., 2020. Assessing the efficacy of nourishment of a Mediterranean beach using bimodal fluvial sediments and a specific placement design. *Geo-Marine letters*, DOI 10.1007/s00367-020-00664-6
- VACCHI et al. 2020. Millennial variability of rates of sea-level rise in the ancient harbour of Naples (Italy, western Mediterranean Sea). *Quaternary Research*, 93, 284-298.
- VACCHI et al. 2018. New relative sea level insights into the isostatic history of western Mediterranean. *Quaternary Science Reviews*, 201, 396-408
- VACCHI, M., et al., 2018. Postglacial relative sea-level histories along the eastern Canadian coastline. *Quaternary Science Reviews*, 201, 124-146.
- VACCHI, M., et al., 2017. Biogeomorphology of the Mediterranean *Posidonia oceanica* meadows. *Earth Surface Processes and Landforms* 42, 42-54.
- VACCHI, M., et al., 2017. New insights into the sea-level evolution in Corsica (NW Mediterranean) since the late Neolithic. *Journal of Archaeological Science: reports*. *Journal of Archaeological Science: reports* 12, 782-793.

VACCHI et al. 2016. Multiproxy assessment of Holocene relative sea-level changes in the western Mediterranean: sea level variability and improvements in the definition of the isostatic signal. *Earth-Science Rev.* 155, 172–197.

VACCHI, M., et al. 2014. Towards a predictive model to assess the natural position of the *Posidonia oceanica* seagrass meadows upper limit. *Marine Pollution Bulletin* 83, 458–466.

VACCHI, M., et al., 2014. Spatial models to support the management of coastal marine ecosystems: a short review of the best practices in Liguria, Italy. *Mediterranean Marine Science* 15(1), 189-197.

VACCHI, M., et al., 2014. An updated database of Holocene relative sea level changes in NE Aegean Sea. *Quaternary International*, 328, 301-310.

VACCHI et al. 2012. Spatial distribution of sea level markers in Lesbos Island (NE Aegean Sea): evidence of differential relative sea level changes and neotectonic implications. *Geomorphology* 159-160, 50–62.

VACCHI et al. 2012. Assessing enigmatic boulder deposits in NE Aegean Sea; importance of historical sources as tool to support hydrodynamic equations. *Natural Hazard and Earth System. Science* 12, 1109–1118.

VACCHI, M., et al., 2012. Hydrodynamic constraints to the seaward development of the *Posidonia oceanica* meadows, *Estuarine, Coastal and Shelf science* 97, 58- 65.

VACCHI, M., et al., 2010. The influence of coastal dynamics on the upper limit of the *Posidonia oceanica* meadow. *Marine Ecology* 31 (4): 546-554.