CURRICULUM VITAE

EMANUELA CLEMENTI

[redacted]

RESEARCH INDICATORS

ORCID: 0000-0002-5752-1849

	H index	n. citations
SCOPUS	16	1173
Web of Science	14	1042
Google Scholar	20	4508
ResearchGate	19	1920

[redacted]

CURRENT POSITION

Division director of the "Regional Ocean Forecasting Systems" (ROFS) Division at Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)

EDUCATION

2004-2007 — PhD in Hydraulic and Coastal Engineering

Institute: Polytechnic University of Milan & University of Bologna, Italy

Thesis title: Hydrodynamics in and around rubble mound breakwaters: experimental analysis and numerical modelling.

Supervisor: Prof. A. Lamberti

Score: excellent

1995-2002 — Environmental Engineering Degree

Institute: University of Bologna, Italy

Thesis title: Analysis of the river flooding seasonal regime toward a regionalization of the flooding risk indexes in Emilia-Romagna and Marche regions.

Supervisor: Prof. A. Brath

Score: 96/100

1990-1995 — Scientific high school diploma

Institute: Scientific high school, Riccione, Italy

Score: 56/60

PROFESSIONAL EXPERIENCE

Mar. 2024 - present — Division Director
Regional Ocean Forecasting Systems (ROFS) Division

Institute: CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici)

Coordinate the activities of the ROFS division with the aim of :

- Managing and Enhancing the Copernicus Mediterranean and Black Sea Systems

- Developing Regional Ocean Modeling and Data Assimilation
- Optimizing Operational Chains of the Regional and Global ocean operational systems at CMCC
- Streamlining Ocean Data Management

Apr. 2018 - present

Junior Scientist / Scientist (from 2022)

Institute: CMCC (Centro Euro-Mediterraneo sui Cambiamenti Climatici)

Research activities:

- Development and implementation of a 3D wave-current coupled modelling system in the Mediterranean Sea composed by the circulation model NEMO (Nucleus for European Modelling of the Ocean) and the spectral wave model WaveWatchIII (WW3) in the context of the Copernicus Marine Service.
- Quality assessment of the physical analysis and forecast numerical product for the Mediterranean Sea by comparing numerical results with in-situ and satellite observations.
- Research and numerical implementation of wave-current interaction processes

Roles:

- 2018-2024: Responsible for the CMCC Research Unit on Regional Modelling
- 2018-2024: Deputy Leader of the Copernicus Marine Mediterranean Monitoring and Forecasting Center (Med-MFC)
- 2024/12-ongoing: Leader of the Copernicus Marine Mediterranean Monitoring and Forecasting Center (Med-MFC)
- 2018-ongoing: Member of the OceanPredict (https://oceanpredict.org/) Intercomparison and Validation Task Team
- 2018-2023: System Team member of the NEMO consortium
- 2018-2022: EGU Co-convener for the Copernicus Marine Environment Monitoring Service session
- 2020-ongoing: Co-chair of METOF, the Mercator Ocean International Expert Team on Ocean Forecasting
- 2020-2021: H2020 IMMERSE Project Task Leader and responsible for the upgrade of the NEMO-wave coupling processes
- 2022-ongoing: CMCC Scientific Responsible for the Copernicus Marine Mediterranean Monitoring and Forecasting Center (Med-MFC)
- 2022-ongoing: CMCC representative in MonGOOS (Mediterranean Oceanographic Network for the Global Ocean Observing System, https://mongoos.eurogoos.eu/) and co-chair of the MonGOOS Modeling Working Group
- 2023-ongoing: CMCC representative in ScinMeet (The Science We Need for the Mediterranean Sea We Want, https://decenniodelmare.it/progetti/scinmeet/)
- 2023-ongoing: Responsible for the OceanPrediction DCC (Decade Collaborative Center) Mediterranean and Black Sea Regional Team
- 2021-2024: Supervisor of Ph.D. Thesis: Bethany McDonagh. Title: Analysis of the effects of barotropic and internal tides on the Mediterranean Sea dynamics through numerical experiments.
- 2023-ongoing: Supervisor of Ph.D. Thesis: Anna Chiara Goglio. Title: Analyzing the Mediterranean Sea circulation and tidal dynamics through numerical experiments

Sep. 2012 - Mar. 2018

Researcher

Institute: INGV (Istituto Nazionale di Geofisica e Vulcanologia), Bologna, Italy

Research activities:

- Research, development and implementation of a 3D wave-current coupled modelling system in the Mediterranean Sea composed by the circulation model NEMO (Nucleus for European Modelling of the Ocean) and the spectral wave model WaveWatchIII (WW3) in the context of MyOcean Project and the Copernicus Marine Service
- Quality assessment of the physical analysis and forecast numerical product for the Mediterranean Sea by comparing numerical results with both in situ and satellite measurements
- Research and numerical implementation of wave-current interaction processes

Roles:

- 2015-2018: Product Quality Responsible for the Copernicus Marine Mediterranean Monitoring and Forecasting Center
- 2015-2018: Responsible for the wave and current numerical modeling development for the analysis and forecast system within the operational oceanography group at INGV
- 2015-2018: INGV Officer and leader of the NEMO-WAVE Working Group in the NEMO consortium
- 2016-2018: Member of the GODAE Intercomparison and Validation Task Team
- 2017-2019: Co-supervisor of Ph.D. Thesis in Geophysics: Damiano Delrosso. Title: River runoff impact on a high-resolution numerical model of the Mediterranean Sea

- 2017-2018: INGV representative in EuroGOOS
- 2017-2018: EGU Co-convener for the Copernicus Marine Environment Monitoring Service session
- Participation in the MyOcean2, MyOcean FollowOn EU projects and CMEMS Med-MFC phase1

2008-2012

Research Scholarship

Institute: University of Bologna - CIRSA (Interdepartmental Center of Research on Environmental Sciences), Ravenna, Italy

Supervisor: Prof. M. Zavatarelli

Research activities:

- Research and development of a 3D high resolution coupled physical-biogeochemical numerical modelling system of the marine ecosystem in the Adriatic Sea composed by the Biogeochemical Flux Model (BFM) and a numerical general circulation model Princeton Ocean Model (POM)
- Modeling the interannual variability of the Adriatic Sea ecosystem using high frequency atmospheric forcing
- Development of numerical experiments aimed at improving marine environmental predictions by testing control, hindcast and scenario
- Validation of the numerical results compared to in-situ and satellite observations
- Participation to the VECTOR and MEECE EU projects

2007-2008

Collaboration Contract

Institute: University of Bologna – DISTART Hydraulics, Italy

Supervisor: Prof. A. Lamberti

Research activities:
R&D on sustainable coastal engineering techniques and technical assessment of in-situ observations.

Roles:

- Support the coordination activities of the Italian coastal network (RIC) of ENCORA (European platform for sharing knowledge and experience among coastal and marine communities)
- Responsible for contact database RIC related to people, institutions and projects on integrated coastal zone management

2004-2007

PhD Scholarship

Institute: Polytechnic University of Milan, Italy

Supervisor: Prof. A. Lamberti

Thesis: Hydrodynamics in and around rubble mound breakwaters: experimental analysis and numerical modelling
Research Activities:

- Physical and numerical modeling of sea-waves in shallow water and study the interaction of sea waves with coastal, permeable and low crested defence structures (submerged or slightly emerged)
- Design, implementation and realization of physical experiments conducted on permeable low-crested structures in a small-scale channel for waves and currents at the Laboratory of Civil Engineering of the University of Florence
- Analysis of the experimental results by identifying a new empirical formulation of overtopping for low crested structures
- Development of numerical experiments with high resolution two-dimensional code 2DV COBRAS (Cornell Breaking Waves and Structures) simulating wave-permeable structure interaction processes
- Calibration and validation of the numerical model through comparison with experimental data produced in the laboratory

2003-2004

Research Scholarship

Institute: University of Bologna – DISTART Hydraulics, Italy

Supervisor: Prof. A. Lamberti

Research activities:

- Study of hydrodynamics and morphodynamics in and around low crested coastal defence structures and wave propagation in coastal zone
- Research on typical case studies of low-crested coastal defence structures
- Study of wave propagation from offshore to onshore
- Participation to the EU project DELOS

OTHER SKILLS

Italian Mother tongue

English B2 level

Computer skills

- OS: MS Windows, Unix/Linux
- Programming Languages: Fortran, Matlab, Python
- Numerical codes: COBRAS (Cornell Breaking Waves and Structure) 2DV model, BFM (Biogeochemical Flux Model), POM (Princeton Ocean Model), NEMO (Nucleus for European Modelling of the Ocean), WW3 (WaveWatchIII).

Specialized Courses

- 8-10 October 2012: Introduction to Parallel Programming and Message Passing Paradigm, CINECA, Bologna
- 7-14 September 2011: MEECE Summer School: Marine Ecosystem Evolution in a Changing Environment, METU, Ankara, Turkey
- 8-13 June 2009 – SESAME Summer School: Coupled Ecological Modelling, University of Malta
- 27 June-08 July 2005: Summer School: Estuarine and coastal processes in relation to coastal zone management, NIOZ (Royal Netherlands Institute of Sea Research), Texel, The Netherlands
- 7-18 June 2004: Numerical Methods for Hyperbolic Equations, University of Trento, Italy
- 2004-2005: Environmental Technician. ECO-Utility Company, Italy

PEER-REVIEWED PAPERS

Mcdonagh, B., **Clementi, E**., Goglio, A.C., Pinardi, 2004 Mcdonagh, B., Clementi, E., Goglio, A.C., Pinardi, N. (2024) "The characteristics of tides and their effects on the general circulation of the Mediterranean Sea", Ocean Science, 20(4), pp. 1051–1066.

Moulin A., Mentaschi L., Clementi E., Verri G., Mercogliano P. (2024), "Projections of the Adriatic wave conditions under climate changes", Frontiers in Climate, Volume 6, doi: 10.3389/fclim.2024.1409237

Verri G., Furnari L., Gunduz M., Senatore A.; Santos Da Costa V. , De Lorenzis A., Fedele G., Manco I., Mentaschi L.; **Clementi E**., Coppini G., Mercogliano P. (2024) "Climate projections of the Adriatic Sea: role of river release", Frontiers in Climate, doi: 10.3389/fclim.2024.1368413

Bonino G., Galimberti G., Masina S., McAdam R., **Clementi E.** (2024) "Machine learning methods to predict sea surface temperature and marine heatwave occurrence: a case study of the Mediterranean Sea", Ocean Science, Volume 20, Issue 2, Pages 417 - 432, doi: 10.5194/os-20-417-2024

Coppini, G., **Clementi, E.,** Cossarini, G., Salon, S., Korres, G., Ravdas, M., Lecci, R., Pistoia, J., et al. (2023) "The Mediterranean forecasting system. Part I: evolution and performance", EGUsphere, https://doi.org/10.5194/egusphere-2022-1337, 2023.

Ciliberti S.A., Fanjul E.A., Pearlman J., Wilmer-Becker K., Bahurel P., Ardhuin F., Arnaud A., Bell M., Berthou S., Bertino L., Capet A., Chassignet E., Ciavatta S., Cirano M.,**Clementi E.,** et al. (2023) "Evaluation of operational ocean forecasting systems from the perspective of the users and the experts", State of the Planet, 1-osr7, 2, DOI: https://doi.org/10.5194/sp-1-osr7-2-2023

Aydogdu A., Miraglio P., Escudier R., **Clementi E.,** Masina S. (2023) "The dynamical role of upper layer salinity in the Mediterranean Sea ", State of the Planet, Volume 1-osr7, DOI: https://doi.org/10.5194/sp-1-osr7-6-2023

von Schuckmann K., Le Traon P.-Y.,..Clementi E. et al., (2022) Copernicus Ocean State Report, Issue 6. J. of Op. Oceanography, 15:sup1, s1–s220; DOI: 10.1080/1755876X.2022.2095169

Mourre, B., **Clementi, E**., Coppini, G., et al., (2022) "Mediterranean observing and forecasting Systems" in Shroeder k., Chiggiato J., Oceanography of the Mediterranean Sea. ELSEVIER, pp. 335-386. https://doi.org/10.1016/C2020-0-00371-3

Escudier R., **Clementi E**., Cipollone A., Pistoia J., Drudi M., Grandi A., Lyubartsev V., Lecci R., Aydogdu A., Delrosso D., Omar M., Masina S., Coppini G., Pinardi N. (2021). A High Resolution Reanalysis for the Mediterranean Sea. Frontiers in Earth Science, VOLUME=9, PAGES=1060, DOI: DOI=10.3389/feart.2021.702285.

Nascimento Lima L., Ciliberti S., Aydogdu A., Masina S., Escudier R., Cipollone A., Azevedo Martins D., Causio S., Peneva E., Lecci R., **Clementi E**., Jansen E., Ilicak M., Cretì S., Stefanizzi M. L. , Palermo F. , Coppini G. 2021. Climate Signals in the Black Sea From a Multidecadal Eddy-Resolving Reanalysis. Frontiers in Marine Science, DOI: 10.3389/fmars.2021.710973.

von Schuckmann K, Le Traon P-Y., Smith N., Pascual A., ... , **Clementi E.,** .., et al. (2021) "Copernicus Marine Service Ocean State Report, Issue 5", Journal ofOperational Oceanography, 14:sup1, 1-185, DOI: 10.1080/1755876X.2021.1946240

Causio, S., Ciliberti, S.A., **Clementi, E**., Coppini, G., Lionello, P. A. (2021) Modelling Approach for the Assessment of Wave-Currents Interaction in the Black Sea. J. Mar. Sci. Eng. 2021, 9, 893. https://doi.org/10.3390/jmse9080893

Ilicak M., Federico I., Barletta I., Mutlu S., Karan H., Ciliberti S.A., **Clementi E**., Coppini G., Pinardi N. (2021). Modelling of the Turkish Strait System using a high resolution unstructured grid ocean circulation model. J. Mar. Sci. Eng. 2021, 9(7), 769; https://doi.org/10.3390/jmse9070769

Pérez-Gómez B., García-León M., García-Valdecasas J., **Clementi E**., Mösso Aranda C., Pérez-Rubio S., Masina S., Coppini G., Molina-Sánchez R., Muñoz-Cubillo A., García Fletcher A., Sánchez González J.F., Sánchez-Arcilla A., Álvarez Fanjul E. (2021). Understanding Sea Level Processes During Western Mediterranean Storm Gloria. Frontiers in Marine Science,

ttps://www.frontiersin.org/article/10.3389/fmars.2021.647437

Verri G., Pinardi n., Bryan F., Tseng Y., Coppini G., **Clementi E**. (2020). A box model to represent estuarine dynamics in mesoscale resolution ocean models. Ocean Modeling 148, https://doi.org/10.1016/j.ocemod.2020.101587

von Schuckmann K., Le Traon P-Y., Smith N., Pascual A., …. , **Clementi E.,** .., et al. (2020), "Copernicus Marine Service Ocean State Report, Issue 4", Journal of Operational Oceanography, 13, https://doi.org/10.1080/1755876X.2020.1785097

Tintoré J, Pinardi N, Álvarez-Fanjul E, Aguiar E, Álvarez-Berastegui D, Bajo M, Balbin R, .., **Clementi E.**,... et al. (2019). Challenges for Sustained Observing and Forecasting Systems in the Mediterranean Sea. Front. Mar. Sci. 6:568. doi: 10.3389/fmars.2019.00568

Fanjul E.A., Collar Collar A.P., Gómez B.P., De Alfonso M., Sotillo M.G., Staneva, J., **Clementi E.,** et al., (2019). Sea level, sea surface temperature and SWH extreme percentiles: combined analysis from model results and in situ observations. J. of Operational Oceanography.

Davidson F., Alvera-Azcárate A., Barth A., Brassington G.B., Chassignet E.P., **Clementi E**., et al., (2019). Synergies in Operational Oceanography: The Intrinsic Need for Sustained Ocean Observations. Frontiers in Marine Science, 6:450. DOI: 10.3389/fmars.2019.00450

Le Traon P.Y., Reppucci A., Fanjul E., Aouf L., Behrens A., Belmonte M., Bentamy A., Bertino L., .. **Clementi E.,** ..et al. (2019). From Observation to Information and Users: The Copernicus Marine Service Perspective. Frontiers in Marine Science, 6 10.3389/fmars.2019.00234

von Schuckmann K. et al. (2019). Copernicus Marine Service Ocean State Report, Issue 3. Journal of Operational Oceanography, 12(sup1), pp. S1-S123, DOI: 10.1080/1755876X.2019.1633075

Wu L., Staneva J., Breivik Ø., Rutgersson A., Nurser A.J.G., **Clementi E.**, Madec G., (2019). Wave effects on coastal upwelling and water level. Ocean Modelling.DOI:10.1016/j.ocemod.2019.101405.

Vieira V.M.N.C.S., Jurus P., **Clementi E.,** Mateus M. (2018). The FuGas 2.3 Framework for Atmosphere-Ocean Coupling: Comparing Algorithms for the Estimation of Solubilities and Gas Fluxes. Atmosphere. Vol.9 Issue 8. DOI:10.3390/atmos9080310

Liubartseva S., Coppini, G., Lecci R., **Clementi E.** (2018). Tracking plastics in the Mediterranean: 2D Lagrangian model. Marine Pollution Bulletin, 129,1,ISSN 0025-326X, https://doi.org/10.1016/j.marpolbul.2018.02.019.,

von Schuckmann K. et al. (2018). Copernicus Marine Service Ocean State Report. Journal of Operational Oceanography, 11(sup1), pp. S1-S142, DOI: 10.1080/1755876X.2018.1489208

Clementi E., Oddo P., Drudi M., Pinardi N., Korres G., Grandi A. (2017). Coupling hydrodynamic and wave models: first step and sensitivity experiments in the Mediterranean Sea. Ocean Dynamics Vol. 67 (10), pp.1293–1312. doi: https://doi.org/10.1007/s10236-017-1087-7.

Von Schuckmann, K., Traon P-Y., Alvarez Fanjul E., Axell L., ….. **Clementi E**., et al. (2017). The Copernicus Marine Environment Monitoring Service Ocean state report. Proceedings of the Institute of Marine Engineering, Science, and Technology. Journal of operational oceanography 9(Sup2):235-320. DOI: 10.1080/1755876X.2016.1273446.

Zodiatis G., De Dominicis M., Perivoliotis L., Radhakrishnan H., Georgoudis E., Sotillo M., Lardner R.W., Krokos G., Bruciaferri D., **Clementi E**., Guarnieri A., et al. (2016). The Mediterranean Decision Support System for Marine Safety dedicated to oil slicks predictions. Deep Sea Research Part II: Topical Studies in Oceanography. 133. https://*doi*.org/*10.1016/j.dsr2.2016.07.014*.

Chust G., I.J. Allen, L. Bopp, C. Schrum, J. Holt, K. Tsiaras, M. Zavatarelli, M. Chifflet, H. Cannaby, I. Dadou, U. Daewel, S.L. Wakelin, E. Machu, D. Pushpadas, M. Butenschon, Y. Artioli, G. Petihakis, C. Smith, V. Garçon, K. Goubanova, B. Le Vu, B.A. Fach, B. Salihoglu, **E. Clementi**, X. Irigoien, 2014. Biomass changes and trophic amplification of plankton in a warmer ocean. Global Change Biology, 20 (7). pp: 2124-2139, DOI: http://dx.doi.org/10.1111/gcb.12562

PROCEEDINGS, EXTENDED ABSTRACTS & NOT PEER-REVIEWED PAPERS

Coppini G., Clementi E., Cossarini G., Korres G., Drudi M.,et al. (2021) The Copernicus Marine Service ocean forecasting system for the Mediterranean Sea. 9th EuroGOOS International conference, Shom; Ifremer; EuroGOOS. AISBL, May 2021, Brest, France. pp.272-279. HAL Id: hal-03334358. https://hal.archives-ouvertes.fr/hal-03334358v2

Le Traon P.Y. and 108 co-authors, (2017). The Copernicus Marine Environmental Monitoring Service: Main Scientific Achievements and Future Prospects. Special Issue Mercator Océan Journal #56. https://doi.org/10.25575/56

Clementi E., J. Pistoia, D. Delrosso, G. Mattia, C. Fratianni, A. Storto, S. Ciliberti, B. Lemieux, E. Fenu, S. Simoncelli, M. Drudi, A. Grandi, D. Padeletti, P. Di Pietro, N. Pinardi (2017). A 1/24 degree resolution Mediterranean physical analysis and forecast modeling system for the Copernicus Marine Environment Monitoring Service. Extended abstract to the 8th EuroGOOS Conference, Bergen, 5pp.

Pistoia J., **Clementi E**., Delrosso D., Mattia G., Fratianni C., Drudi M., Grandi A., Padeletti D., Di Pietro P., Storto A., Pinardi N. (2017). Last improvements in the data assimilation scheme for the Mediterranean Analysis and Forecast system of the Copernicus Marine Service. Extended abstract to the 8th EuroGOOS Conference, Bergen, 5pp.

Delrosso D., **Clementi E**., Grandi A., Tonani M., Oddo P., Girardi F.G., Pinardi N. (2016). Towards the Mediterranean Forecasting System MyOcean V5: numerical experiments results and validation. Rapporto Tecnico INGV. ftp://ftp.ingv.it/pro/cen/Delrosso/technical_report_delrosso_formatted.pdf

Clementi E., Gaeta M.G., Lamberti A., 2009. Filtration through low crested structures in 2D: experimental and numerical investigations. Proceeding in: 5th Int. Conf. on Coastal Structures 2007, (Venezia, 2007), World Scientific, pp 927-938. DOI 10.1142/9789814282024_0082.

Clementi E., 2008. Analisi sperimentale e studio numerico dell'idrodinamica in prossimità di frangi-flutti in massi. Article in Bollettino AIOM n.37, pp. 27-31.

Clementi E., Gaeta M.G., Lamberti A., 2008. Analisi numerica 2DV dei processi idrodinamici indotti dalla presenza di barriere permeabili a cresta bassa. Extended abstract al 31° Convegno Nazionale di Idraulica e Costruzioni Idrauliche, Perugia, 9-12 settembre 2008, 8pp.

Clementi, E., 2007. Hydrodynamics in and around rubble mound breakwaters: experimental analysis and numerical modelling. PhD thesis, 231 pp. Politecnico di Milano.

Martinelli L., Zanuttigh B., **Clementi E**., 2007. Transformation of waves from deep water to shallow water. Part III: Tools, Section 13.2, pp. 206-217, in "Environmental Design Guidelines for Low Crested Coastal Defence Structures", Burcharth H. F., Hawkins S., Zanuttigh B. & A. Lamberti, ed.s, Elsevier.

Clementi E., Cappietti L., Martinelli L., 2006. Analisi sperimentale di tracimazione, piling up e filtrazione per scogliere a cresta bassa. Proceeding in: 30th Convegno Idraulica e Costruzioni Idrauliche, (Roma, 2006). Versione elettronica, 16 pp.

Clementi E., Cappietti L., Martinelli L., 2006. Wave flume experiments and results on piling up and overtopping for low crested structures. Proceeding in: 1st Int. Conf. on the Application of Physical Modelling to Port and Coastal Protection (Porto, 2006), pp. 413-424.

Cappietti L., **Clementi E.,** Aminti P.L., Lamberti A., 2006. Piling-up and filtration at low crested breakwaters of different permeability. Proceeding in: 30th Int. Conf. on Coastal Engineering (San Diego, 2006), Vol. 5, pp. 4957-4969.

RESEARCH PROJECTS & SERVICES

- 2018-ongoing: Copernicus Marine Service Med-MFC: Copernicus Marine Environment Monitoring Service, Mediterranean - Monitoring and Forecasting Center: https://marine.copernicus.eu/about/producers/med-mfc (2018-2024: Deputy Leader. 2024/12-ongoing: Leader. 2022-ongoing: CMCC Scientific Responsible. 2015-2018: Product Quality Responsible)
- 2023-ongoing: PNRR SPOKE 4 WP3 (development of parameterizations related to wave-current interactions)
- 2022-2024: EstuarIO Copernicus Service Evolution Project https://marine.copernicus.eu/about/research-development-projects/2022-2024/estuario (implementation of an Estuary Box Model in the Mediteranean Sea Forecasting system)
- 2020-2023: INTERREG Projects: ADRIACLIM, CASCADE, STREAM
- 2019-2022: IMMERSE H2020 Project: https://immerse-ocean.eu/ (Task Team Leader on Wave-current interactions)
- 2012-2015: EU project MyOcean2/MyOcean Follow on (development of coupled wave-current system for near real time forecast in the Mediterranean Sea)
- 2013-2015: DGMARE – EMODNET Mediterranean Sea Basin Checkpoint
- 2009: EU-FP7 project MEECE: Marine Ecosystem Evolution in a Changing Environment
- 2007-2008: ENCORA: European Platform for Coastal Research Coordination Action, EU FP6 Coordination Action
- 2004: EU-FP6 project DELOS: Low Crested Coastal Defence Structures

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

Bologna, 7-12-2024

Emanuela Clementi