

CURRUCULUM VITAE

Dr. JACOPO ALESSANDRI

Address: Via della lampara 12, Punta Marina Terme, Ravenna, Italy

Phone: +393402814625

E-mail: idromele89@gmail.com



<https://www.scopus.com/authid/detail.uri?authorId=57223125526>



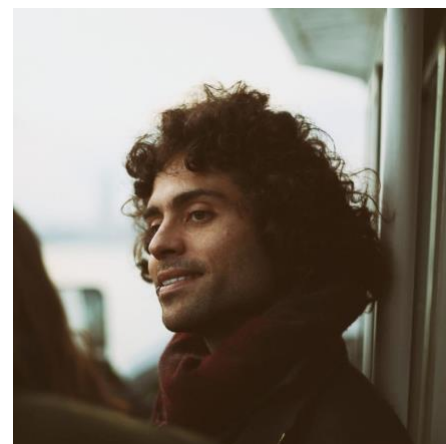
<https://orcid.org/0000-0003-3301-0929>



<https://scholar.google.com/citations?user=0HV0DCYAAAAJ&hl=en>



<https://www.researchgate.net/profile/Jacopo-Alessandri-2>



GENERAL INFORMATION

Date of Birth:	1st of February, 1989
Country of Citizenship/Residence	Italy / Italy

CURRENT POSITION

Research fellow in coastal oceanography at SINCEM laboratory, department of physics and astronomy (DIFA), University of Bologna, Campus of Ravenna on EDITO Model-Lab Horizon European project (H2020).

EDUCATION

2018-2022 – PhD in Geophysics (oceanography) – University of Bologna, Italy

The PhD work focused on ocean numerical simulations with a very high resolution unstructured grid model (SHYFEM) to evaluate impacts at the coast due to storm surge and assess coastal hazard reduction due to Nature Based Solutions (NBS; *e.g.* Seagrass) in the present and in future scenario

- **Thesis title:** Coastal modelling studies for forecasting and remediation solutions
- **Supervisor:** Andrea Valentini
- **Co-supervisor:** Nadia Pinardi

2014-2017 – Master's degree in physics of the Earth system – University of Bologna, Italy

The Master's thesis work focused on the numerical simulation of the wind driven Mediterranean Sea circulation with the NEMO ocean model at 1/8 degree.

- **Thesis title:** On the wind driven circulation of the Mediterranean Sea
- **Supervisor:** Nadia Pinardi
- **Grade:** 106/110

2008-2013 – Bachelor's degree in atmospheric physics and meteorology – University of Bologna, Italy

The bachelor's thesis work focused on the physical characterization of the so called "Mediterranean Hurricane" (Medicane).

- **Thesis title:** Tropical like cyclone in the Mediterranean Sea
- **Supervisor:** Vincenzo Levizzani
- **Grade:** 104/110

EMPLOYMENT HISTORY AND RELEVANT TRAINING

01/02/2018 – 01/11/2018 | Studentship on coastal unstructured modelling (SHYFEM) for Goro lagoon management (Northern Adriatic Sea, Italy) - Department of physics and astronomy, University of Bologna, Italy; Hydro-meteorological service, Arpa, Bologna, Italy.

31/05/2021 – 31/08/2021 | Visiting PhD student working on the implementation of seagrass turbulence effects into SHYFEM unstructured grid model (reference professor: Hans Burchard) - Leibniz institute for Baltic Sea research (IOW), Rostock, Germany.

01/11/2021 – 30/06/2023 | Research fellow on coastal climate downscaling in the framework of the AdriaClim Interreg Italy-Croatia European project (<https://programming14-20.italy-croatia.eu/web/adriaclim>). - Centre for research in environmental sciences (CIRSA), University of Bologna.

01/07/2023 – present | Research fellow on development of a coupling between a biogeochemical (BFM) and a hydrodynamic (SHYFEM) model in the framework of the EDITO Model-lab Horizon European project (<https://www.edito-modellab.eu/>) - Department of physics and astronomy, University of Bologna.

LANGUAGES

Italian: native speaker

English: Self assessment European level

Comprehension		Spoken		Written
Listening	Reading	Interplay	Speaking	Writing
B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user

Portuguese: Self assessment European level

Comprehension		Spoken		Written
Listening	Reading	Interplay	Speaking	Writing
A2 Elementary	A2 Elementary	A2 Elementary	A2 Elementary	A2 Elementary

IT SKILLS

- Great skills in managing large dimension files and NetCDF format files with standard software (NCO, CDO, Python).
- Excellent knowledge of LINUX operating system.
- Excellent skills in BASH scripting.
- Great knowledge of Python programming software.
- Good knowledge of GIT version control software.
- Good knowledge of Fortran programming software.
- Great knowledge of the Office package (Word, Excel, Powerpoint).
- Large experience working on HPC with IBM and SLURM schedulers.
- Good knowledge of GIS mapping software (QGIS).

OTHER PERSONAL SKILLS

- Good teamwork ability and capacity of carrying out the work independently.
- Sailing instructor and good relationship with marine environment.
- Traditional Irish music player (Uilleann pipes, tin whistle).
- Driving License: B

CONFERENCES AND WORKSHOPS

EGU General Assembly 2024, 14 – 19 April 2024. Vienna, Austria. Investigating Seagrass as a Nature-Based Solution for Coastal Protection: toward a Digital Twin Modelling Framework. Jacopo Alessandri, Ivan Federico, Salvatore Causio, Nicolàs Biocca, Jonas T. Carvalho, Giovanni Coppini, Simone Bonamano, Viviana Piermattei, Lorenzo Mentaschi, Marco Marcelli, Andrea Valentini, Nadia Pinardi.
Ocean Sciences Meeting (OSM24), 18 – 23 February 2024. New Orleans, USA. Poster Investigating Seagrass as a Nature-Based Solution for Coastal Protection: toward a Digital Twin Modelling Framework. Jacopo Alessandri, Ivan Federico, Salvatore Causio, Nicolàs Biocca, Jonas T. Carvalho, Giovanni Coppini, Simone Bonamano, Viviana Piermattei, Lorenzo Mentaschi, Marco Marcelli, Andrea Valentini, Nadia Pinardi.
Ocean modelling workshop and infoday, AdriaClim & STREAM projects, Interreg Italia-Croazia, 27-28 settembre 2022, Venezia, Italy. Ensemble storm surge modelling on the Goro Lagoon. J. Alessandri, N. Pinardi, I. Federico, A. Valentini.
AdriaClim seminar, 31 Marzo 2022, University of Bologna, Ravenna, Italy. Modelling of the Emilia-Romagna pilot area. J. Alessandri, N. Pinardi, L. Mentaschi, L. Biolchi, S. Unguendoli, A. Valentini.
Ocean Sciences Meeting (OSM22), 24 February – 4 March 2022. Online Conf. Ensemble Storm Surge Modelling of the Goro Lagoon (Adriatic Sea, Northern Italy). J. Alessandri, N. Pinardi, I. Federico, A. Valentini.
9th EuroGOOS International Conference, 3-5 maggio 2021. Storm surge forecasting and predictability in the Goro lagoon (Italy). J. Alessandri, N. Pinardi, A. Valentini, I. Federico.

LIST OF PUBLICATIONS

Mentaschi, L., Lovato, T., Butenschön, M., Alessandri, J., Aragão, L., Verri, G., Guerra, R., Coppini, G., Pinardi, N. (2024). Projected climate oligotrophication of the Adriatic marine ecosystems. <i>Frontiers in Climate</i>, 6, Article number: 1338374, pp. 1 – 16. DOI: https://dx.doi.org/10.3389/fclim.2024.1338374
Alessandri, J., Pinardi, N., Federico, I., Valentini, A. (2023). Storm Surge Ensemble Prediction System for Lagoons and Transitional Environments. <i>Weather and Forecasting</i>. 38, pp. 1791 - 1806. DOI: 10.1175/WAF-D-23-0040.1
Verri, G., Barletta, I., Pinardi, N., Federico, I., Alessandri, J., Coppini, G. (2023). Shelf slope, estuarine dynamics and river plumes in a z* vertical coordinate, unstructured grid model. <i>Ocean modelling</i>. 184, pp. 102235 – 102250. DOI: 10.1016/j.ocemod.2023.102235
Unguendoli, S., Biolchi, L.G., Aguzzi, M., Pillai, U.P.A., Alessandri, J., Valentini, A. (2023). A modeling application of integrated nature based solutions (NBS) for coastal erosion and flooding mitigation in the Emilia-Romagna coastline (Northeast Italy). <i>science of the total environment</i>. 867, pp. 1 – 21. DOI: 10.1016/j.scitotenv.2022.161357
Pillai, U.P.A., Pinardi, N., Alessandri, J., Federico, I., Causio, S., Unguendoli, S., Valentini, A., Staneva, J. (2022). A Digital Twin modelling framework for the assessment of seagrass Nature Based Solutions against storm surges. <i>science of the total environment</i>. 847, pp. 1 – 12. DOI: 10.1016/j.scitotenv.2022.157603
Gallotti G., Santo M.A., Apostolidou I., Alessandri J., Armigliato A., Basu B., Debele S., Domeneghetti A., Gonzalez-Ollauri A., Kumar P., Mentzafou A., Pilla F., Pulvirenti B., Ruggieri P., Sahani J., Salmivaara A., Basu A.S., Spyrou C., Pinardi N., Toth E., Unguendoli S., Pillai U.P.A., Valentini A., Varlas G., Zaniboni F., Di Sabatino S. (2021). On the management of nature-based solutions in open-air laboratories: New insights and future perspectives. <i>Resources</i>. 10, Article number: 36, pp. 1 – 21. DOI: https://dx.doi.org/10.3390/resources10040036
Maicu, F., Alessandri, J., Pinardi, N., Verri, G., Umgiesser, G., Lovo, S., Turolla, S., Paccagnella, T., Valentini, A. (2021). Downscaling With an Unstructured Coastal-Ocean Model to the Goro Lagoon and the Po River Delta Branches. <i>frontiers in marine science</i>, 8, pp. 1 – 23. DOI: 10.3389/fmars.2021.647781

