



PhD supervisor



Name: Pietro

Surname: Scandura

Department of Civil Engineering and Architecture

University of Catania (Italy)

Position: Associate Professor

Language(s): Italian, English

phone number: +390957382726

e-mail: pietro.scandura@unict.it

Postal address: Via Santa Sofia, 64, 95125, Catania, Italy

Potential areas for PhD supervision:

- Coastal hydro-morphodynamics
- Hydrodynamics under breaking waves
- Interaction of sea waves with coastal structures
- Sea wave turbulent boundary layer on rough beds
- Wave energy converters

Supervising experience:

- 4 PhD students

Employment history:

- 2001 – present University of Catania

Membership of professional association:

Since 1993 Member of the Professional Chamber of Engineers of the province of Catania

Education

PhD in Hydraulic Engineering, University of Naples (Italy)

MSc in Civil Engineering, University of Catania (Italy)

Most recent journal papers

1. Scandura P., Malara G., Arena F. (2021). The inclusion of non-linearities in a mathematical model for U-Oscillating Water Column wave energy converters. *Energy*, vol. 218, 119320, ISSN: 0360-5442, doi: 10.1016/j.energy.2020.119320.
2. Cavallaro L., Iuppa C., Scandura P., Foti E. (2020). Wave-induced loads on a lock gate provided with an opening through the ballast tank. *Journal of Ocean Engineering and Marine Energy*, vol. 6, p. 415-425, ISSN: 2198-6444, doi: 10.1007/s40722-020-00180-w.
3. Scandura P., Faraci C., Blondeaux P. Steady Streaming Induced by Asymmetric Oscillatory Flows over a Rippled Bed. *Journal of Marine Science and Engineering*. (2020); 8(2):142. <https://doi.org/10.3390/jmse8020142>
4. van der Zanden J., van der A D.A., Cáceres I., Bjarke Eltard Larsen, Fromant G., Petrotta C., Scandura P., Li M. (2019). Spatial and temporal distributions of turbulence under bichromatic breaking waves. *Coastal Engineering*, vol. 146, p. 65-80, ISSN: 0378-3839, doi: 10.1016/j.coastaleng.2019.01.006.
5. Faraci C., Scandura P., Petrotta C., Foti E. (2019). Wave-Induced Oscillatory Flow Over a Sloping Rippled Bed. *Water*, vol. 11, 1618, ISSN: 2073-4441, doi: 10.3390/w11081618.
6. Cavallaro P., Iuppa C., Scandura P., Foti E. (2018). Wave load on a navigation lock sliding gate. *Ocean Engineering*, vol. 154, p. 298-310, ISSN: 0029-8018, doi: <https://doi.org/10.1016/j.oceaneng.2018.02.023>.
7. Faraci C., Scandura P., Musumeci R. E., Foti E. (2018). Waves plus currents crossing at a right angle: near-bed velocity statistics. *Journal of Hydraulic Research*, vol. 56, p. 464-481, ISSN: 0022-1686, doi: 10.1080/00221686.2017.1397557.
8. Petrotta C., Faraci C., Scandura P., Foti E. (2018). Experimental investigation on sea ripple evolution over sloping beaches. *Ocean Dynamics*, vol. 68, p. 1221-1237, ISSN: 1616-7341, doi: 10.1007/s10236-018-1197-x.
9. Falciglia P. P., Scandura P., Vagliasindi F. (2018). Modelling and preliminary technical, energy and economic considerations for full-scale in situ remediation of low-dielectric hydrocarbon-polluted soils by microwave heating (MWH) technique. *Journal of Soils and Sediments*, vol. 18, p. 2350-2360, ISSN: 1439-0108, doi: 10.1007/s11368-017-1682-8
10. Van Der A D., Scandura P., O'Donoghue T. (2018). Turbulence statistics in smooth wall oscillatory boundary layer flow. *Journal of Fluid Mechanics*, vol. 849, p. 192-230, ISSN: 0022-1120, doi: 10.1017/jfm.2018.403
11. Falciglia P.P., Scandura P., Vagliasindi F. (2017). Modelling of in situ microwave heating of hydrocarbon-polluted soils: Influence of soil properties and operating conditions on electric field variation and temperature profiles. *Journal of Geochemical Exploration*, vol. 174, p. 91-99, ISSN: 0375-6742, doi: 10.1016/j.jgexplo.2016.06.005
12. Scandura P., Faraci C., Foti E. (2016). A numerical investigation of acceleration-skewed oscillatory flows. *Journal of Fluid Mechanics*, vol. 808, p. 576-613, ISSN: 0022-1120, doi: 10.1017/jfm.2016.641