

## Journal papers

1. **Simonetti I.**, Cappietti L., 2022, *Influence of Inlets Morphology and Forcing Mechanisms on Water Exchange between Coastal Basins and the Sea: A Hindcast Study for a Mediterranean Lagoon*. Journal of Marine Science and Engineering, vol. 10, 1929, ISSN: 2077-1312, doi: 10.3390/jmse10121929
2. **Simonetti, I.**, Cappietti, L., 2023, *Mediterranean coastal wave-climate long-term trend in climate change scenarios and effects on the optimal sizing of OWC wave energy converters*, Coastal Engineering, vol. 179, 104247, ISSN: 0378-3839, doi: 10.1016/j.coastaleng.2022.104247
3. **Simonetti, I.**, Esposito, A., Cappietti, L., 2022, *Experimental Proof-of-Concept of a Hybrid Wave Energy Converter Based on Oscillating Water Column and Overtopping Mechanisms*, Energies, 2022 15, 8065. <https://doi.org/10.3390/en15218065>
4. Ciappi, L., **Simonetti, I.**, Bianchini, L., Cappietti, L., Manfrida, G., 2022, *Application of integrated wave-to-wire modelling for the preliminary design of oscillating water column systems for installations in moderate wave climates*, Renewable Energy, Volume 194, Pages 232-248, ISSN 0960-1481, <https://doi.org/10.1016/j.renene.2022.05.015>
5. Ciappi, L. Cheli, L., **Simonetti, I.**, Bianchini, A., Talluri, L., Cappietti, L., Manfrida, G., 2021, *Wave-to-wire models of Wells and impulse turbines for oscillating water column wave energy converters operating in the Mediterranean Sea*, Energy, 121585, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2021.121585>.
6. **Simonetti, I.**, Cappietti, L., 2021, *Hydraulic performance of oscillating water column structures as anti-reflection devices to reduce harbour agitation*, Coastal Engineering, 2021, 165, 103837, <https://doi.org/10.1016/j.coastaleng.2020.103837>
7. Ciappi, L., Cheli, L., **Simonetti, I.**, Bianchini, A., Manfrida, G., Cappietti, L. 2020, *Wave-to-Wire Model of an Oscillating-Water-Column Wave Energy Converter and Its Application to Mediterranean Energy Hot-Spots*. Energies, 13, 5582. <https://doi.org/10.3390/en13215582>
8. Cappietti, L., **Simonetti, I.**, 2020, *Wave-induced Water-mass Flow Across Shore-defense Detached and Emergent Rubble-mound Breakwaters*, Journal of Coastal Reserach, Special Issue No 95, 197-201. <https://doi.org/10.2112/SI95-039.1>
9. Kisacik, D., Stratigaki, V., Wu, M., Cappietti, L., **Simonetti, I.**, Troch, P., Crespo, A., Altomare, C., Domínguez, J., Hall, M., Gómez-Gesteira, M., Canelas, R.B., Stansby, P., 2020, *Efficiency and Survivability of a Floating Oscillating Water Column Wave Energy Converter Moored to the Seabed: An Overview of the Esflowc MaRINET2 Database*. Water 2020, 12, 992. <https://doi.org/10.3390/w12040992>
10. **Simonetti, I.**, Cappietti, L., Oumeraci, H., 2018, *An Empirical model as a supporting tool to optimize the main design parameters of a stationary oscillating water column wave energy converter*, Applied Energy, <https://doi.org/10.1016/j.apenergy.2018.09.100>
11. **Simonetti, I.**, Cappietti, L., ElSafti, H., Oumeraci, H., *Evaluation of air compressibility effects on the performance of fixed OWC wave energy converters using CFD modelling*, Renewable Energy 119 (2018) 741-753 <https://doi.org/10.1016/j.renene.2017.12.027>
12. **Simonetti, I.**, Cappietti, L., ElSafti, H., Oumeraci, H., *Optimization of the geometry and the turbine induced damping for fixed detached and asymmetric OWC devices: A numerical study*, Energy 139 (2017) 1197-1209, <https://doi.org/10.1016/j.energy.2017.08.033>.
13. **Simonetti, I.**, Maltagliati, S., Manfrida, G., 2015, *Air quality impact of a middle size airport within an urban context through EDMS simulation*. Journal of Transportation Research Part D Transport and Environment 10/2015; 40:144-154. <https://doi.org/10.1016/j.trd.2015.07.008>

## Conference Papers

14. Crespo et al., 2023, *On the state-of-the-art of CFD simulations for WECs within the open-source numerical framework of DualSPHysics*, Proceedings of the 15th European Wave and Tidal Energy Conference, Bilbao, Spain 4-7 Sept. 2023, DOI: <https://doi.org/10.36688/ewtec-2023-145>
15. **Simonetti, I.**, Cappietti, L., 2023, *Effects of projected wave climate changes on the sizing and performance of OWCs: a focus on the Mediterranean and Atlantic European coastal*

- waters*, Proceedings of the 15th European Wave and Tidal Energy Conference, Bilbao, Spain 4-7 Sept. 2023, DOI: <https://doi.org/10.36688/ewtec-2023-155>
16. Raghavan, V., **Simonetti, I.**, Lavidas, G., Cappietti, I., 2023, *Numerical modelling of a box-type and bottom-detached oscillating water column wave energy conversion device: a comparison with experimental data and between BEM and CFD numerical modelling*, Proceedings of the 15th European Wave and Tidal Energy Conference, Bilbao, Spain 4-7 Sept. 2023, DOI: <https://doi.org/10.36688/ewtec-2023-142>
  17. **Simonetti, I.**, Esposito, A., Cappietti, L., 2023, *Development of a hybrid Oscillating Water Column-Overtopping device: Preliminary results of laboratory tests at scale 1:25 on the O2WC WEC*, Trends in Renewable Energies Offshore: Proceedings of the 5th International Conference on Renewable Energies Offshore (RENEW 2022, Lisbon, Portugal, 8–10 November 2022) (1st ed.). CRC Press. <https://doi.org/10.1201/9781003360773>
  18. Ciappi, L., **Simonetti, I.**, Bianchini, A., Cappietti, L., Manfrida, G., 2021, *Application of wave-to-wire modelling to optimise oscillating water column wave energy converters for small installations in the Mediterranean Sea*. 16th Conference on Sustainable Development of Energy, Water and Environment Systems, SDEWES 2021, 10-15 October 2021, Dubrovnik, Croatia
  19. Ciappi, L., Cheli, L., **Simonetti, I.**, Bianchini, A., Talluri, L., Manfrida, G., Cappietti, L., 2020, *Analytical Models of Oscillating Water Column Systems Operating with Air Turbines in the Mediterranean Sea*, in: Proceedings of the 15th Conference on Sustainable Development of Energy System, Water and Environment Systems, 1-5 September 2020, Cologne, Germany.
  20. Walker, S., Cappietti, L., **Simonetti, I.**, Esposito, A., 2020, *Laboratory scale tests of a floating tidal turbine*, in: *Proceedings of the 4th Conference on Renewable Energies Offshore*, Developments in Renewable Energies Offshore – Guedes Soares (Ed.) © 2021 Taylor & Francis Group, London, ISBN 978-0-367-68131-9.
  21. Cappietti, L., Solari, S., **Simonetti, I.**, Crema, I., 2019, *Numerical modelling of Orbetello lagoon circulation in the XVIII century*, in 2019 IMEKO TC-19 International Workshop on Metrology for the Sea, 3-5 October 2019, Genova, Italy. ISBN: 978-92-990084-2-3.
  22. Cappietti L., Ciappi L., Esposito A., Fiaschi D., Manfrida G., Melka B., Nowak M., **Simonetti I.**, Stebel M., Smolka J., Talluri L., 2019, *Experimental investigation of velocity-augmented barriers for tidal turbines*, in Proceedings of the 14th Conference on Substainable Development of Energy, Water and Environment System, SDEWES2019, 1-6 October 2019, Dubrovnik, Croatia
  23. Cappietti, L., **Simonetti, I.**, Crema, I., 2019, *Concept design of a Very Large Floating Structure and Laboratory Scale Physical Modelling*, in Proceedings of the ASME 2019 38th International Conference on Ocean, Offshore and Arctic Engineering, OMAE2019, June 9-14, Glasgow, Scotland, UK, OMAE2019-96259. <https://doi.org/10.1115/OMAE2019-96259>.
  24. **Simonetti, I.**, Cappietti, L., 2019, *The impact of modelling air compressibility in the selection of optimal OWC design parameters in site specific wave conditions*, in Proceedings of the ASME 2019 38th International Conference on Ocean, Offshore and Arctic Engineering, OMAE2019, June 9-14, Glasgow, Scotland, UK, OMAE2019-96123, <https://doi.org/10.1115/OMAE2019-96123>
  25. Cappietti, L., **Simonetti, I.**, Crema, I., 2019, *Laboratory experiments on the performance of an OWC-WEC: fixed condition versus floating platform-embodied condition*, Proceedings of the 13th European Wave and Tidal Energy Conference, 1-6 Sept. 2019, Naples, Italy. ISSN 2309-1983
  26. Walker, S., Cappietti, L., **Simonetti, I.**, 2019, *A laboratory study on the effects of waves on the performance and structural deflection of a tidal stream turbine*, in Proceedings of the 13th European Wave and Tidal Energy Conference, 1-6 Sept. 2019, Naples, Italy. ISSN 2309-1983
  27. Cappietti, L., Crema, I., **Simonetti, I.**, 2018, *Assessing water exchange between sea and the Orbetello lagoon (Italy) by field measurements and numerical simulations*, Proceedings of the 2018 IEEE International Workshop on Metrology for the Sea (MetroSea 2018), Bari, Italy. pp 55-59, ISBN: 978-1-5386-7643-1
  28. Crespo, AJC., Domínguez, JM., Gómez-Gesteira, M., Hall, M., Altomare, C., Wu, M., Verbrugghe, T., Stratigaki, V., Troch, P., Kisacik, D., **Simonetti, I.**, Cappietti, L., Canelas,

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29. Cappietti, L., **Simonetti, I.**, Penchev, V., Penchev, P., 2019, *Laboratory tests on an original wave energy converter combining oscillating water column and overtopping devices*, Advances in Renewable Energies Offshore – Guedes Soares (Ed.) © 2019 Taylor & Francis Group, London, ISBN 978-1-138-58535-5, Lisbon, Portugal. pp 791-796
  30. Cappietti, L., **Simonetti, I.**, 2018, *On the effectiveness of Oscillating Water Column devices in reducing the agitation in front of vertical walls harbour structures*, ICCE2018, Abstract in Proceedings of the 36th International Conference on Coastal Engineering, Baltimora, <https://doi.org/10.9753/icce.v36.papers.112>
  31. **Simonetti, I.**, Cappietti, L., *Quantificazione delle perdite di energia utile in dispositivi WEC-OWC*, memoria in: Atti del XXXVI Congresso Nazionale di Idraulica e Costruzioni Idrauliche, IDRA18, Bologna, 12-14 Settembre 2018, pp: 4, ISBN: 9788894379907
  32. Cappietti, L., **Simonetti, I.**, Esposito, A., Streicher, M., Kortenhaus, A., *Esperimenti a grande scala su carichi da overtopping d'onda su pareti verticali: spessore e velocità della lama tracimante*, memoria in: Atti del XXXVI Congresso Nazionale di Idraulica e Costruzioni Idrauliche, IDRA18, Bologna, 12-14 Settembre 2018, pp: 4, ISBN: 9788894379907
  33. Cappietti, L., **Simonetti, I.**, Esposito, A., Streicher, M., Kortenhaus, A., Scheres, B., Schuettrumpf, H., Hirt, M., Hofland, B., Xuexue, C., 2018, *Large-Scale Experiments of Wave-Overtopping Loads on Walls: Layer Thicknesses and Velocities*, Proceedings of the 37th International Conference on Ocean, Offshore and Arctic Engineering, OMAE 2018, Madrid, Spain. Paper No. OMAE2018-78104, pp. V07AT06A028; 6 pages doi:10.1115/OMAE2018-78104
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  39. **Simonetti, I.**, Cappietti, L., Oumeraci, H., 2016, *Phenomenon of air compressibility in air-water systems, benchmarking a two-phase numerical model*. In Proceedings of the 7th International Short Course and Conference on Applied Coastal Research (SCACR), Florence, Italy, pp: 233-239. ISBN: 978-88-97181-52-1
  40. **Crema, I.**, Simonetti, I., Cappietti, L., Oumeraci, H., 2015, *Laboratory Experiments on Oscillating Water Column Wave Energy Converters Integrated in a Very Large Floating Structure*. 11th European Wave and Tidal Energy Conference, EWTEC 2015, Nantes, France; 09/2015, ISSN 2309-1983
  41. **Simonetti, I.**, Cappietti, L., ElSafti, H., Manfrida, G., Matthies, H., Oumeraci, H., 2015, *The use of OpenFOAM as a Virtual Laboratory to simulate Oscillating Water Column Wave Energy Converters*. VI International Conference on Computational Methods in Marine Engineering, MARINE 2015, Rome, Italy; 06/2015, pp. 153-163, ISBN:978-84-943928-6-3.

42. **Simonetti, I.**, Cappietti, L., El Safti, H., Oumeraci, H., 2015, *Numerical Modelling of Fixed Oscillating Water Column Wave Energy Conversion Devices: Toward Geometry Hydraulic Optimization*. ASME 2015 34th International Conference on Ocean, Offshore and Arctic Engineering, Volume 9: Ocean Renewable Energy, St. John's, Newfoundland, Canada, 06/15, ISBN: 978-0-7918-5657-4, DOI:10.1115/OMAE2015-42056.
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44. **Simonetti, I.**, Cappietti, L., 2014, *Simulazione numerica di un dispositivo Oscillating Water Column per lo struttamento dell'energia delle onde marine. Stato dell'arte e implementazione in ambiente OpenFOAM*. In: Atti del XXXIV Congresso Nazionale di Idraulica e Costruzioni Idrauliche, IDRA14, Bari, 7-10 settembre 2014, Zaccaria Editore, pp. 827-828, ISBN:9788890456183.
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