

Curriculum Vitae

PERSONAL INFORMATION

Full Name: Andrea Coraddu, PhD, IEEE Member, MIMarEST
Title: Dr
Nationality:
Position: Assistant Professor
Start date: August 2021
Address: Delft University of Technology, Faculty of Mechanical, Maritime and Materials Engineering, Department of Maritime and Transport Technology, Mekelweg 2, 2628 CD Delft, The Netherlands.
Tel:
Email:

RESEARCH INTERESTS

I have an extensive experience of around 12 years on teaching and researching in the scientific area of marine systems engineering having been employed in various positions both in the Academia and Industry as well as in participating in large EU funded projects since 2012.

I am the leader of an international interdisciplinary research group working on developing data-driven approaches to investigate the behaviour of complex systems and their mutual interaction. Utilising the latest learning algorithms and theoretical results in Artificial Intelligence and Machine Learning my primary research involves taking advantage of data availability to assess complex systems energy performance, perform energy optimisation, and real-time monitoring.

My research, supported through successful grants applications from research councils, industry, and international governmental agencies focuses on the various methods of modelling, optimisation and analysis of complex engineering systems, pursuing life-cycle energy management, efficiency improvement and reduction of the environmental footprint for promoting green design and operations that can meet the challenges of the marine industry regarding cost savings and environmental impact.

EDUCATION

01/2018→10/2020-Postgraduate Diploma in Academic Practice, University of Strathclyde, UK

01/2008→04/2012-PhD in Naval Architecture and Marine Engineering, University of Genova, Italy

09/1999→04/2006-MSc in Naval Architecture and Marine Engineering, University of Genova, Italy

EMPLOYMENT HISTORY

I am Assistant Professor at Delft University of Technology, Faculty of Mechanical, Maritime and Materials Engineering, Department of Maritime and Transport Technology. I have been Senior Lecturer in the Department of Naval Architecture, Ocean & Marine Engineering (NAOME) at the University of Strathclyde since October 2020. My relevant professional and academic experiences include working as a Lecturer at NAOME Department from 2018 to 2020, Teaching Associate at NAOME Department from 2017 to 2018, Research Associate at the School of Marine Science and Technology at Newcastle University, Research Engineer as part of the DAMEN R&D department based in Singapore, and serving as Postdoctoral Research Fellow at the University of Genoa, where I was awarded a laurea and a PhD in Naval Architecture and Marine Engineering.

09/2021→present- Academic Visitor at University of Strathclyde, Department of Department of Naval Architecture, Ocean & Marine Engineering, UK. Glasgow, UK.

08/2021→present-Assistant Professor in Ship Design, Production & Operations. Delft University of Technology, Faculty of Mechanical, Maritime and Materials Engineering, Department of Maritime and Transport Technology, Delft. The Netherlands.

10/2020→08/2021-Senior Lecturer in Marine Engineering. University of Strathclyde, Department of Department of Naval Architecture, Ocean & Marine Engineering, UK. Glasgow, UK.

10/2018→09/2020- Lecturer in Marine Engineering. University of Strathclyde, Department of Department of Naval Architecture, Ocean & Marine Engineering, UK. Glasgow, UK.

09/2017→09/2018-Teaching Associate in Marine Engineering. University of Strathclyde, Department of Department of Naval Architecture, Ocean & Marine Engineering, UK. Glasgow, UK.

04/2017→08/2017-Research Associate. Newcastle University, School of Marine Science and Technology Newcastle, UK.

04/2015→02/2017-Research Engineer. DAMEN Shipyards Singapore Pte Ltd, Singapore.

10/2013 - 09/2014-Post-doc researcher. University of Genova, Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture, Genova, Italy.

09/1999→03/2012-Officer. Italian Navy, Italy.

AWARDS AND FUNDING

- 01/10/20→31/03/22 - UK Research and Innovation COVID-19 (Strathclyde PI – WP leader)**
Risk Evaluation of Artificially Intelligent Tool (RELIANT) for COVID19 - **(Research)**
Total Budget: 1,357,000
Strathclyde Budget: £229,623 - funded at 80% / Academic ownership:100%
- 13/12/19→1/09/24 - Damen Schelde Naval Shipbuilding and the Dutch Ministry of Defence (PI)**
Hybrid modelling for predictive maintenance of platform systems: A case study on the Holland Class Offshore Patrol Vessels - **(Research)**
Total Budget: £78,650
Strathclyde Budget: £51,387 / Academic ownership:100%
- 1/01/21→31/12/24 - Seatec UK Limited & DATALAB (PI)**
Digital Twin solutions for Condition Monitoring of on-board machinery based on Machine Learning approach - **(Research)**.
Due to COVID-19 Seatec UK Limited is facing some financial issue, and now the project has been paused.
Total Budget: £65,634 / Academic ownership:100%
- 1/10/21→31/09/25 - EPSRC- WAMSS CDT (PI)**
EPSRC PhD Position funded **(Research)**
Budget: £84,130 / Academic ownership:100%
- 1/10/20→31/09/24 - EPSRC WAMSS CDT PhD funded by Katrick Technologies Limited (PI)**
Vibration energy harvesting using Unidirectional Sting Mirrors Panels - **(Research)**
Budget: £84,130 / Academic ownership:100%
- 22/07/19→26/07/19 - Continuing Professional Development Course (PI)**
Data Analysis for Engineering - **(Knowledge Exchange)**
Budget: £4000 / Academic ownership:100%

7. **1/10/20 to present- IEEE Oceanic Engineering Society (PI)**
IEEE OES Marine and Ocean Forum - **(Knowledge Exchange)**
Budget: £7937 / Academic ownership:100%
8. **01/01/19 - EPSRC Capital Award for ECRs (PI)**
Cross-disciplinary advanced Vibration Laboratory - **(Research)**
Tubaldi, E, Coraddu, A, Jones, C, Cartmell, M.
Total Budget: £63,000
EPSRC Contribution: £32,00
Faculty of Engineering Strategic Research Funding & Combined departmental funding Contribution: £31,00
Academic ownership:25%
9. **10/20→09/23 - Research Studentship Scheme, EPSRC Research Excellence Award (PI)**
Digital-Twin Solutions for Health Monitoring, Novelty Detection and Condition-Based Maintenance applications - **(Research)**
Total Budget: £60,957
10. **10/18→09/21 - Research Studentship Scheme, EPSRC Student Excellence Award (PI)**
Unlocking the Power of Data in the Shipbuilding Industry - **(Research)**
Total Budget: £69,932 (Due to personal circumstances the candidate could not start the position)
11. **04/12/19→12/12/19 - Erasmus+ Staff Exchange (PI)**
Total Budget: £1395
12. **28/11/18→31/01/19 - Scottish Enterprise (PI)**
Vibration Energy Recovery using Uni-Directional String Mirrors - **(Research)**
Total Budget: £4658 / Academic ownership: 100%
13. **01/09/20→30/11/20 - Zicom Private Ltd (Col)**
LNG fuelled tanker boil off formation detailed analysis- **(Knowledge Exchange)**
Theotokatos, G., Coraddu, A, Boulougouris, E.
Total Budget: £104,293 / Academic ownership: 15%
14. **01/09/20→30/11/20 - Sand Monitoring Services Limited (Col)**
Digital Twin- **(Knowledge Exchange)**
Brennan, F., Coraddu, A, Oterkus, E.
Total Budget: £1,072,411 / Academic ownership: 33%
15. **07/12/18→31/12/19 – Conference Hosting MOSES2019 (Col)**
2nd International Conference on Modelling and Optimisation of Ship Energy Systems - **(Knowledge Exchange)**
Theotokatos, G., Coraddu, A.
Total Budget: £8,400.00/ Academic ownership: 43%
16. **1/11/18→31/10/20 - European Commission - Horizon 2020 (Col)**
Virtual and physical Experimental Towing centre for the design of energy Efficient sea-faring vessels - **(Research)**
Demirel, Y. K., Atlar, M., Coraddu, A., Day, S., Incecik, A., Kurt, R., Tezdogan, T., Turan, O. & Yuan, Z.
Total Budget: €799,903
Strathclyde Budget: £203,593 / Academic ownership: 16%
17. **5/05/19→4/05/21 - KTP - Datum Electronics (Col)**
Knowledge Exchange
Theotokatos, G., Coraddu, A. & Lazakis, I.
Total Budget: £138,386 / Academic ownership: 25%
18. **1/06/19→31/05/22 - European Commission, Horizon 2020 (Col)**
Strengthening synergies between Aviation and maritime in the area of human Factors - **(Research)**
Kurt, R., Coraddu, A. & Turan, O.
Total Budget: € 6,988,469
Strathclyde Budget: £841,299 / Academic ownership: 4%
19. **1/11/18→31/10/20 - EU SOCRATES ERASMUS (Col)**
Maritime Education for Energy Efficiency - **(Knowledge Exchange)**
Kurt, R., Coraddu, A., Demirel, Y. K. & Turan, O.
Total Budget: £29,645 / Academic ownership: 15%

20. **1/04/18→29/02/20 - CalMac Ferries Limited (Col)**

Determining the Operational Weather Limits for Safe and Energy Efficient Operation of Car Ferries - **(Knowledge Exchange)**

Turan, O., Coraddu, A., Kurt, R., Tezdogan, T. & Yuan, Z.

Total Budget: £19,986 / Academic ownership: 17%

DISTINCTIONS

1. **Guest Editor of the Special Issue:** Advance Research in Ship Energy Systems, Journal of Marine Science and Engineering, 2021.
2. **Guest Editor of the Special Issue:** Modelling and Optimisation of Ship Energy Systems, Journal of Marine Science and Engineering, 2020.
3. **Reviewer** for more than 10 journals, including: Ocean Engineering, Applied Ocean Research, Reliability Engineering and Safety System, Transportation Research Part D, Journal of Ocean Engineering and Science, Algorithms, Sensor, Sustainability, Data-Enabled Discovery and Applications, Neural Processing Letters, Proceedings of the Institution of Mechanical Engineers Part M Journal of Engineering for the Maritime Environment, Journal of Marine Engineering & Technology.
4. **Reviewer for EPSRC** (Supergen Offshore Renewable Energy Hub) Research Fund proposal.
5. **Member of the Royal Society:** Rapid Assistance in Modelling the Pandemic (RAMP) contributing to the UK and global effort to tackle Coronavirus COVID-19 since June 2020.

PhD RESEARCH SUPERVISION

Principal supervisor

1. 2020→2023 – Mr Jake Walker, “Digital-Twin Solutions for Health Monitoring, Novelty Detection and Condition-Based Maintenance applications”.
2. 2020→2023 - Mr Iliya Valchev, “Condition-based Maintenance of Diesel Engines: A case study on the Holland Class Offshore Patrol Vessels”.
3. 2020→2023 - Mr Cristiano Martinelli, “Vibration energy harvesting using Unidirectional Sting Mirrors Panels”.
4. 2019→2024 – Mr Kalikatzarakis, Miltiadis, “Underwater Radiated Noise of cavitating propellers”.
5. 2018→2021 – Mr Kristovic Mario, “Analysis, Design and Operational Optimization Of Aframax Tanker Considering Her Lifetime Exploitation Conditions”.

Second supervisor

1. 2020→2023 – Mr Adebayo Ojo, “Analysis and Design Methodology for the Development of Novel Floating Support Platform for Wind Turbine”.
2. 2019→2024 – Mr Konstantinos Tsitsilonis, “Novel integrated decision support system for marine engine condition monitoring”.

Completed, as main supervisor

1. 10/2018 – Ms Anna Lito Michala, “Edge Processing Solution Development for Vessel Condition Monitoring”.

TEACHING EXPERIENCE

From 01/01/2021 – **NM844 Digital Twin of Autonomous vessels** (Module Leader). MSc Marine Engineering/ Naval Architecture/ Marine Engineering with Specialisation in Autonomous Marine Vehicles.

01/01/2020 to present – **NM836 Data Analysis for Engineering** (Module Leader). MSc Marine Engineering/Naval Architecture.

01/01/2020 to present – **NM530 Ship Powering in Service**. MSc in Advanced Naval Architecture.

09/07/2018 – **Data Analysis for Engineering**. PhD course in Marine Engineering (Module Leader).

16/04/2018→20/04/2018 – **(MEC-EV) Designing and operating energy-efficient ships**. MSc course in Mechanical Engineering. University of Aalto, School of Engineering, Mechanical Engineering.

From 01/09/2017 to present:

NM952 Advanced Marine Engineering. MEng/MSc in Marine Engineering.

NM951 Marine Engineering Simulation and Modelling (Module Leader). MEng/MSc in Marine Engineering.

NM421 Marine Power and Electrical Systems. MEng/BEng in Marine Engineering.

NM316 Marine Engineering Systems and Control (Module Leader). MEng/BEng in Naval Architecture and Marine Engineering.

NM213 Marine Engineering Fundamentals. MEng/BEng in Naval Architecture and Marine Engineering.

Since 2017, I am the supervisor of 5+ 4th-year individual projects (30 credits) per year (NM440). I am also supervisor of 2+ MSc (60 credits) dissertations per year and second marker of an additional 2/3 dissertations per year. In 2020, a 4th-year student I supervised has been awarded the RINA – BAE Systems 4th Year Student Project award.

I am contributing to the development and delivery of the WAMSS CDT, by supervising/supporting management/delivering lectures/interviewing the candidates. Since December 2020, the CPD/PhD class on Data Analysis for Engineering will become available for the WAMSS CDT students.

PROFESSIONAL MEMBERSHIPS

08/2020 to present – Fellow of The Higher Education Academy (FHEA) (pending exam board).

02/2018 to present – Member of the ITTC Specialist Committee on Energy Saving Methods.

02/2018 to present – IEEE Member and IEEE Oceanic Engineering Society Member.

02/2018 to present – Institute of Marine Engineering, Science & Technology - Member (MIMarEST).

PUBLICATIONS

Publications in International Referred Journals

- J1. Kalikatzarakis, M., **Coraddu, A.**, Oneto, L., Anguita, D. (2021). *Optimising Fuel Consumption in Thrust Allocation for Marine Dynamic Positioning Systems*. IEEE Transactions on Automation Science and Engineering.
- J2. **Coraddu*, A.**, Oneto, L., Cipollini, F., Kalikatzarakis, M., Meijn, G.J., Geertsma, R. (2021). *Physical, Data-Driven, and Hybrid Approaches to Model Engine Exhaust Gas Temperatures in Operational Conditions*. Ships and Offshore Structures.
- J3. Louvros, P., Boulougouris, E., **Coraddu, A.**, Vassalos, D., Theotokatos, G. (2021). *Smart Internal Arrangement of Ships at the Early Design Stage using Multi-objective optimisation*. Ships and Offshore Structures.
- J4. **Coraddu*, A.**, Oneto, L., Ilardi, D., Stoumpos, S., & Theotokatos, G. (2021). Marine dual fuel engines monitoring in the wild through weakly supervised data analytics. *Engineering Applications of Artificial Intelligence*, 100, 104179.
- J5. **Coraddu*, A.**, Oneto, L., de Maya, B. N., & Kurt, R. (2020). *Determining the most influential human factors in maritime accidents: A data-driven approach*. Ocean Engineering, 211, 107588. <https://doi.org/10.1016/j.oceaneng.2020.107588>
- J6. Miglianti, L., Cipollini, F., Oneto, L., Tani, G., Gaggero, S., **Coraddu*, A.**, & Viviani, M. (2020). *Predicting the cavitating marine propeller noise at design stage: A deep learning based approach*. Ocean Engineering, 209, 107481. <https://doi.org/10.1016/j.oceaneng.2020.107481>
- J7. Uzun, D., **Coraddu, A.**, Demirel, Y.K., Turan, O. (2019). *Time-Dependent Biofouling Growth Model for Predicting the Effects of Biofouling on Ship Resistance and Powering*. Ocean Engineering, 191, 106432. <https://doi.org/10.1016/j.oceaneng.2019.106432>
- J8. **Coraddu*, A.**, Oneto, L., Baldi, F., Cipollini, F., Atlar, M., & Savio, S. (2019). *Data-driven ship digital twin for estimating the speed loss caused by the marine fouling*. Ocean Engineering, 186, 106063. <https://doi.org/10.1016/j.oceaneng.2019.05.045>
- J9. **Coraddu*, A.**, Lim, S., Oneto, L., Pazouki, K., Norman, R., & Murphy, A. J. (2019). A novelty detection approach to diagnosing hull and propeller fouling. Ocean Engineering, 176, 65-73. <https://doi.org/10.1016/j.oceaneng.2019.01.054>
- J10. Cipollini, F. and Oneto, L. and **Coraddu, A.**, Savio, S. (2019). *Unsupervised Deep Learning for Induction Motors Bearings Monitoring*, Data-Enabled Discovery and Applications, 3,1. <https://doi.org/10.1007/s41688-018-0025-2>
- J11. L. Oneto, **A. Coraddu**, F. Cipollini; O. Karpenko; K. Xepapa; P. Sanetti, D. Anguita. (2018). *Crash Stop Manoeuvring Performance Prediction: a Data Driven Solution for Safety and Collision Avoidance*. Data-Enabled Discovery and Applications, 2, 11. <https://doi.org/10.1007/s41688-018-0024-3>
- J12. F. Cipollini, L. Oneto, **A. Coraddu***, A.J. Murphy, D. Anguita. (2018). *Condition-based maintenance of naval propulsion systems: Data analysis with minimal feedback*. Journal of Reliability Engineering and System Safety, vol. 177, pp. 12 – 23, 2018. <https://doi.org/10.1016/j.ress.2018.04.015>
- J13. F. Cipollini, L. Oneto, **A. Coraddu***, A.J. Murphy, D. Anguita. (2018). *Condition-based maintenance of naval propulsion systems with supervised data analysis*, Ocean Engineering, vol. 149, pp. 268 – 278. <https://doi.org/10.1016/j.oceaneng.2017.12.002>

- J14. **A. Coraddu***, L. Oneto, F. Baldi, and D. Anguita. *Vessels fuel consumption forecast and trim optimisation: a data analytics perspective*. Ocean Engineering, 130:351–370, 2017.
<https://doi.org/10.1016/j.oceaneng.2016.11.058>
- J15. **A. Coraddu***, L. Oneto, A. Ghio, S. Savio, D. Anguita, and M. Figari. *Machine learning approaches for improving condition-based maintenance of naval propulsion plants*. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 230(1):136–153, 2015.
<https://doi.org/10.1177/1475090214540874>
- J16. **A. Coraddu***, M. Figari, and S. Savio. *Numerical investigation on ship energy efficiency by monte carlo simulation*. Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment, 228(3):220–234, 2014.
<https://doi.org/10.1177/1475090214524184>
- J17. **A. Coraddu**, G. Dubbioso, S. Mauro, and M. Viviani. *Analysis of twin screw ships' asymmetric propeller behaviour by means of free running model tests*. Ocean Engineering, 68:47–64, 2013.
<https://doi.org/10.1016/j.oceaneng.2013.04.013>

* **Corresponding author**

Book Chapters

A. Coraddu, L. Oneto, F. Baldi, and D. Anguita. *Vessels fuel consumption: a data analytics perspective to sustainability*. In C. Cruz, editor, *Soft Computing for Sustainability Science*. Serie Studies in Fuzziness and Soft Computing. Springer, 2016. https://doi.org/10.1007/978-3-319-62359-7_2

INTERNATIONAL REFERRED CONFERENCES PAPERS

- C1. **A. Coraddu**, L. Oneto, M. Kalikatzarakis, D. Ilardi, M. Collu. *Floating Spar-Type Offshore Wind Turbine Hydrodynamic Response Characterisation: a Computational Cost Aware Approach*. In IEEE OCEANS 2020, 20208.
- C2. Oneto, L., Cipollini, F., Miglianti, L., Tani, G., Gaggero, S., **Coraddu, A.**, Viviani, M., *IEEE International Joint Conference on Neural Networks (IJCNN), Deep Learning for Cavitating Marine Propeller Noise Prediction at Design Stage*, 2020.
- C3. **Coraddu**, M. Kalikatzarakis, L. Oneto, R. D. Geertsma, G. -J. Meijn and M. Godjevac. *Ships diesel engine performance modelling with combined physical and machine learning approach*. In International Ship Control Systems Symposium (ISCSS), 2018.
- C4. **A. Coraddu**, S. Donnarumma, K. Chu, and M. Figari. *Energy efficient propulsion system for dynamic positioning application: design and assessment*. In International Ship Control Systems Symposium (ISCSS), 2018.
- C5. A. Orlandi, F. Guarnieri, C. Busillo, F. Calastrini, and **A. Coraddu**. *Air quality simulations and forecasting of along-route ship emissions in realistic meteo-marine scenarios*. In International Conference on Ships and Maritime Research (NAV), 2018.
- C6. F. Cipollini, L. Oneto, and **A. Coraddu***. *A deep learning approach to marine propulsion system maintenance*. In International Symposium on Naval Architecture and Maritime (INT-NAN), 2018.
- C7. F. Cipollini, L. Oneto, **A. Coraddu**, S. Savio, and D. Anguita. *Unintrusive monitoring of induction motors bearings via deep learning on stator currents*. In International Conference on Big Data and Deep Learning (INNS BDDL), 2018.
- C8. S. Lim, **A. Coraddu**, K. Pazouki, and A.J. Murphy. *Standardisation of data monitoring on-board vessels*. In International Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), 2017.
- C9. Oneto, L., **A. Coraddu**, P. Sanetti, O. Karpenko, F. Cipollini, and D. Anguita. *Marine safety and data analytics: Vessel crash stop maneuvering performance prediction*. In International Conference on Artificial Neural Networks (ICANN), 2017.

- C10. **A. Coraddu***, T. Cleophas, S. Ivancsics, and L. Oneto. *Vessel monitoring based on sensors data collection*. In International Conference on Computer Applications and Information Technology in the Maritime Industries (COMPIT), 2016.
- C11. L. Oneto, **A. Coraddu**, D. Anguita, T. Cleophas, and K. Xepapa. *Vessel monitoring and design in industry 4.0: a data driven perspective*. In International Forum on Research and Technologies for Society and Industry (RTSI), 2016.
- C12. **A. Coraddu†***, T. Cleophas, K. Xepapa, L. Oneto, and D. Anguita. *Operational profiles data analytics for ship design improvement*. In International Conference on Maritime Technology and Engineering (MARTECH), 2016.
- C13. A. Orlandi, R. Benedetti, V. Capecchi, F. Pasi, L. Rovai, and **A. Coraddu**. *Evaluation of the fuel saving potential at the mediterranean scale by the use of high resolution meteocean forecasts and detailed ship performances numerical models*. In Hull Performance and Insight Conference (HullPIC), 2016.
- C14. **A. Coraddu***, L. Oneto, F. Baldi, and D. Anguita. *Ship efficiency forecast based on sensors data collection: Improving numerical models through data analytics*. In OCEANS MTS/IEEE, 2015.
- C15. A. Orlandi, V. Capecchi, L. Rovai, S. Romanelli, A. Ortolani, **A. Coraddu**, and D. Villa. *Ship performances forecasting at the mediterranean scale: evaluation of the impact of meteocean forecasts on fuel savings for energy efficiency and weather routing*. In International Conference on Ships and Shipping Research, 2015.
- C16. **A. Coraddu***, L. Oneto, A. Ghio, S. Savio, D. Anguita, and M. Figari. *Machine learning for wear forecasting of naval assets for condition-based maintenance applications*. In International Conference on electrical systems for aircraft, railway, ship propulsion and road vehicles, 2015.
- C17. A. Orlandi, **A. Coraddu**, D. Villa, and F. Pasi. *Powering and seakeeping forecasting for mediterranean weather routing: assessment of fuel consumptions reduction potentialities by the use of in-service data*. In International Congress of the International Maritime Association of the Mediterranean, 2015.
- C18. A. Orlandi, **A. Coraddu**, D. Villa, and F. Pasi. *Optimum ship energy management by route optimisation with high resolution meteo-marine forecast data of a ro/ro vessel*. In International Conference on Marine Simulation and Ship Manoeuvrability, 2015.
- C19. **A. Coraddu†***, M. Figari, A. Ghio, L. Oneto, and S. Savio. *A sustainability analytics matlab tool to predict ship energy consumption*. In International Conference on Computer Applications and Information Technology in the Maritime Industries, 2014.
- C20. **A. Coraddu**, M. Figari, S. Savio, D. Villa, and A. Orlandi. *Integration of seakeeping and powering computational techniques with meteo-marine forecasting data for in-service ship energy assessment*. In Developments in Maritime Transportations and Exploitation of Sea Resources, volume 1, page 93. CRC Press - Taylor and Francis Group, 2013.
- C21. **A. Coraddu†***, M. Figari, and S. Savio. *Ship energy assessment by numerical simulation*. In International Conference on Computational Methods in Marine Engineering, volume 1, pages 530–540. Brinkmann, B. and Wriggers, P., 2013.
- C22. **A. Coraddu***, P. Gualeni, and D. Villa. *Vulnerability assessment for the loss of stability in wave: some application case for a further insight into the problem*. In International Conference on the Stability of Ship and Ocean Vehicles, 2012.
- C23. **A. Coraddu**, G. Dubbioso, D. Guadalupi, S. Mauro, and M. Viviani. *Experimental investigation of asymmetrical propeller behaviour of twin screw ships during manoeuvres*. In International Conference on Marine Simulation and Ship Manoeuvrability, volume 1, 2012.
- C24. **A. Coraddu†***, M. Figari, and S. Savio. *Probability of achieving the energy efficiency index by monte carlo simulation*. In Managing Reliability and Maintainability in the Maritime Industry, 2012.
- C25. **A. Coraddu†***, M. Figari, and S. Savio. *Energy efficiency index statistical analysis through vessel operating data*. In International Research Conference on Short Sea Shipping, 2012.
Individual contribution: 70%
- C26. **A. Coraddu†*** and M Figari. *Ship electric propulsion: analyses through modeling and simulation*. In International Conference on Computational Methods in Marine Engineering. CIMNE (Barcelona, Spain), 2011.

- C27. **A. Coraddu†***, S. Gaggero, M. Figari, and D. Villa. *A new approach in engine-propeller matching*. In Sustainable Maritime Transportation and Exploitation of Sea Resources, volume I, pages 631–637. CRC Press - Taylor and Francis Group, 2011.
 - C28. **A. Coraddu***, P. Gualeni, and D. Villa. *Investigation about wave profile effects on ship stability*. In Sustainable Maritime Transportation and Exploitation of Sea Resources, volume I, pages 143–149. CRC Press - Taylor and Francis Group, 2011.
 - C29. G. Dubbioso, **A. Coraddu†**, M. Viviani, and M. Figari. *Investigation of asymmetrical shaft power increase during ship maneuvers by means of model tests and simulations*. In International Symposium on Practical Design of Ships and Other Floating Structures, 2010.
 - C30. M. Altosole, G. Benvenuto, **A. Coraddu†**, and M. Figari. *Simulation for the safety assessment of an innovative fast ferry*. In International Conference of Ship and Shipping Research, 2009.
 - C31. M. Altosole, **A. Coraddu†***, and M. Figari. *Two parameter bifurcation of equilibria in continuous time of naval dynamical systems*. In International Conference on Computational Methods in Marine Engineering. CIMNE (Barcelona, Spain), 2009.
 - C32. P. Gualeni, A. Bruzzo, F. Della Volpe, and **A. Coraddu**. *An investigation about the influence of ship size on the environmental performances of oil tankers*. In International Congress of the International Maritime Association of the Mediterranean, 2007.
- * **Corresponding author** † **Conference speaker**