EMship

Sustainable Ships and Offshore Structures

Technical Capacity

CV of Professors

01/02/2023

List

ECN - Guillaume Ducrozety

ECN - Lionel Gentaz

ECN Vincent Leroy

ICAM - Hervé Le Sourne

IST - Angelo Teixeira

IST - Tiago Santos

IST - Yordan Garbatov

SOLENT - Giles Barkley

UGAL - Florin Dimitrie Pacuraru

UGAL - Leonard Domnisoru

UGAL - Sandita Pacuraru

UGENT - Evert Lataire

UGENT - Guillaume Delefortrie

UGENT - Loccufier Mia

ULIEGE - Pablo Morato

ULIEGE - Philippe Rigo

UNIGE - Gianmarco Vergassola

UNIGE - Tatiana Pais

UPM - Antonio Crucelaegui Corvinos

UPM - José Luis Morán González

UPM - Simone Saettone

URO - Florian Sprenger

URO - Patrick Kaeding

URO - Sascha Kosleck

Guillaume Ducrozet

Age: 40

E-mail: guillaume.ducrozet@ec-nantes.fr

Research profile: https://orcid.org/0000-0002-5937-4504

SKILLS

Water waves modelling	Project Supervision
Fluid Mechanics	Teaching
Analytical and numerical modelling	Expertise

WORK HISTORY

2010 - present	Associate Professor – Ecole Centrale de Nantes, LHEEA Lab. (ECN and CNRS)
2009 - 2010	Post-Doctoral fellow – Ecole Centrale Nantes
2008 - 2009	Post-Doctoral fellow (Technical University of Denmark (DTU))
2007 - 2008	Post-Doctoral fellow – Ecole Centrale Nantes

MOST RELEVANT PROJECTS

REM and REM+	EMJMD on Marine Renewable Energy, 2018-2022 (REM) 2022-2027(REM+), partners: UPV (coord.), Univ. Strathclyde (replaced by UCC in REM+), NTNU
WASANO	WAve Specification and ANalysis in Ocean engineering, 2022-2025, partners: BV, DTU, Univ. Pol. Madrid, IIT Madras, Univ. Kyoto, Pusan Nat. Univ., etc.
SimAvHy	Advanced Simulation in Hydrodynamics, 2012-2017, partners: BV, HydrOcean, Nextflow, STX, Sirenha (Naval group), Alstom (GE)

EDUCATION

2007	PhD in Hydrodynamics (Ecole Centrale de Nantes)
2004	Master of Engineering, major in Hydrodynamics and Ocean Engineering (Ecole Centrale de Nantes)

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Canard, M., **Ducrozet, G.**, & Bouscasse, B. (2022). Varying ocean wave statistics emerging from a single energy spectrum in an experimental wave tank. Ocean Engineering, 246, 110375.

[2] **Ducrozet, G.**, Bonnefoy, F., Mori, N., Fink, M., & Chabchoub, A. (2020). Experimental reconstruction of extreme sea waves by time reversal principle. Journal of Fluid Mechanics, 884.

[3] B. R. Seiffert, **G. Ducrozet**, F. Bonnefoy, Simulation of breaking waves using the high-order spectral method with laboratory experiments: Wave-breaking onset, In *Ocean Model.*, Vol. 119, pp. 94-104, 2017

[4] M. Gouin, **G. Ducrozet**, P. Ferrant, Propagation of 3D nonlinear waves over an elliptical mound with a High-Order Spectral method. *Eur. J. Mech. B-Fluid*, Vol. 63, pp. 9-24, 2017.

[5] **Ducrozet G.**, Bonnefoy F., Le Touzé D. and Ferrant P. : HOS-ocean: Open-source solver for nonlinear waves in open ocean based on High-Order Spectral method. *Comp. Phys. Comm.*, 2016.

Lionel Gentaz

Age: 54

E-mail: lionel.gentaz@ec-nantes.fr

Research profile: https://orcid.org/0000-0001-6115-8088

SKILLS

Mathematical models used for hydrodynamics for ocean engineering	Teaching
Numerical methods under potential flow and viscous flow models	Teaching
Viscous flow modelling for wave-structure interactions	Expertise

WORK HISTORY

1996 - today	Assistant Professor at Ecole Centrale de Nantes (ECN) -MFE teaching dept-LHEEA research lab
1995 - 1996	Teaching and Researching Assistant at Ecole Centrale de Nantes

MOST RELEVANT PROJECTS

EMSHIP	Erasmus Mundus programme dedicated to Ship and Offshore Structure Design, funded in 2010 (EMMC, project 2010-3414) till 2018 and renewed as EMSHIP+ programme (EMJMD, project 2019-1464)
Optiroutes	FUI (Single Inter-Ministry Fund), reduction of ship consumption, 2016-2018. Partners: Bureau Veritas, CMA-CGM, IFREMER, HydrOcean, ADRENA, Nextflow Software, ENSM and ECN
Chargeol	Immersed foundations under complex loadings, 2014-2016. Projet from Pays de la Loire region, calculation of interactions between immersed bodies and water current using the RANSE solver ICARE

EDUCATION

1995	PhD in Fluid Dynamics at Ecole Centrale Nantes
1992	Master's Degree in Fluid Dynamics at Ecole Centrale Nantes
1991	Engineer Degree in Naval Engineering at Ecole Centrale Nantes

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Li Z., Bouscasse B., Ducrozet G., **Gentaz L.**, Le Touzé D., Ferrant P., Spectral Wave Explicit Navier-Stokes Equations for wave-structure interactions using two-phase Computational Fluid Dynamics solvers, Ocean Engineering, vol 221, 108513, 2021.

[2] Choi Y.-M., Kim Y.-J., Bouscasse B., Seng S., **Gentaz L.**, Ferrant P. Performance of different techniques of generation and absorption of free-surface waves in Computational Fluid Dynamics, Ocean Engineering, Volume 214, 2020.

[3] Reliquet, G., Robert, M., **Gentaz, L.**, Ferrant, P. Simulations of the Delft 372 catamaran in waves using SWENSE-Level Set coupling. Houille blanche revue internationale de l'eau, 2019, (5-6), 59-66.

[4] Li Z., Deng G., Queutey P., Bouscasse B., Ducrozet G., **Gentaz L.**, Le Touzé D., Ferrant P., Comparison of wave modeling methods in CFD solvers for ocean engineering applications, Ocean Engineering, 188:106237, 2019.

Vincent Leroy

Age: 31

E-mail: vincent.leroy@ec-nantes.fr

Research profile: https://orcid.org/0000-0002-4825-0290

SKILLS

Offshore wind turbine modelling	Teaching, Expertise
Wave-structure interactions	Teaching, Collaboration, Expertise
Experimental hydrodynamics	Collaboration, Expertise

WORK HISTORY

2020 – Today	Assistant professor at Ecole Centrale de Nantes – LHEEA Research Department
2019 – 2020	Post-doc at NTNU Institute of Marine Technology (Trondheim, Norway) and Ecole Centrale de Nantes (Nantes, France)
2015 – 2018	PhD student / R&D Engineer: Ecole Centrale de Nantes (Nantes, France) and INNOSEA (Nantes, France)

MOST RELEVANT PROJECTS

FLOATECH	H2020 project, https://www.floatech-project.com/
HP_FLOW	Heave plate modelling for floating wind (https://www.weamec.fr/en/projects/hp_flow/)
HELOFOW	Hydro-elastic response of large floating offshore floating wind turbines (https://www.weamec.fr/en/projects/helofow/)

EDUCATION

PhD	Fluid Mechanics, Ecole Centrale de Nantes, LHEEA Research Department. Title: "Unsteady aerodynamic modelling for seakeeping analysis of Floating Offshore Wind Turbines". Defended on the 6th of December 2018.
Master	Master's degree in Applied Mechanics, Hydrodynamics and Ocean Engineering, Ecole Centrale de Nantes (France)
Graduate Engineer	Hydrodynamics and Ocean Engineering, Ecole Centrale de Nantes (Nantes, France)

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Leroy, V.**, Delacroix, S., Merrien, A., Bachynski-Polić, E. E., & Gilloteaux, J. C. (2022). Experimental investigation of the hydro-elastic response of a spar-type floating offshore wind turbine. *Ocean Engineering*, 255, 111430.

[2] **Leroy, V.**, Bachynski-Polić, E. E., Babarit, A., Ferrant, P., & Gilloteaux, J. C. (2021). A weak-scatterer potential flow theory-based model for the hydroelastic analysis of offshore wind turbine substructures. *Ocean Engineering*, 238, 109702.

[3] **Leroy, V.**, Gilloteaux, J. C., Lynch, M., Babarit, A., & Ferrant, P. (2019). Impact of aerodynamic modeling on seakeeping performance of a floating horizontal axis wind turbine. *Wind Energy*, 22(8), 1019-1033.

[4] **Leroy, V.**, Gilloteaux, J. C., Lynch, M., Babarit, A., & Ferrant, P. (2019). Impact of aerodynamic modelling on seakeeping performance of a floating vertical axis wind turbine. *Wind Energy*, 22(9), 1175-1189.

Hervé Le Sourne

Age: 55

E-mail: herve.lesourne@icam.fr

Research profile: https://orcid.org/0000-0002-2142-0210

SKILLS

Structural Dynamics – Fluid-structure interactions	Teaching
Composite structures dimensioning	Teaching
Finite Element Analysis	Project Supervision
Analytical and numerical modelling	Expertise

WORK HISTORY

2017 - present	Research Manager – ICAM Engineering Schools (West campuses)
2008 - 2016	Head of Mechanical Engineering Department (Icam Nantes campus)
1999 - 2008	Research project manager (French Shipbuilding Research Institute)
1996 - 1998	Structural Engineer (French Navy Shipbuilding Design Department)
1988 - 1995	Development Engineer (French Navy Shipbuilding Propulsive Department)

EDUCATION

2015	Habilitation to conduct research (HDR) (University of Nantes)
1998	PhD in Structural Mechanics (Ecole Centrale Nantes)
1993	Engineer in Numerical Analysis & Scientific Computing (CNAM)

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **H. Le Sourne**, A. Barrera, J.B. Maliakel – Numerical crashworthiness analysis of an offshore wind turbine jacket impacted by a ship – Journal of Marine Science and Technology, Vol 23 (5) pp 694-704, 2015 – DOI: 10.6119/JMST-015-0529-1.

[2] S. Elhers, **H. Le Sourne**, L. Buldgen, J. Ollero, C. Robertson, Ph. Rigo – A review of technical solutions and simulation approaches for ship collisions with lock gates – Ship Technology Research Journal, Vol 62 (1) pp 14-25, 2015 – DOI 10.1179/0937725515Z.

[3] L. Buldgen, **H. Le Sourne**, Ph. Rigo – A simplified method to evaluate the seismic pressure on plane lock gates – Journal of Engineering Structures, Vol 100, 2015– DOI 10.1016/j.engstruct. 2015.06.030.

[4] **H. Le Sourne**, N. Besnard, C. Cheylan, N. Buannic – A Ship Collision Analysis Program Based on Upper Bound Solutions and Coupled with a Large Rotational Ship Movement Analysis Tool – Journal of Applied Mathematics, 2012 – DOI 10.1155/2012/375686.

[5] **H. Le Sourne**, J.C. Rodet, C. Clanet – Crashworthiness Analysis of a Lock Gate Impacted by Two Different River Ships – International Journal of Crashworthiness, Vol 7 n°4 pp 371-396, 2002.

Ângelo Palos Teixeira

Age: 51

E-mail: teixeira@centec.tecnico.ulisboa.pt

Research profile: https://orcid.org/0000-0002-0012-2652

SKILLS

Structural Safety and Reliability	Teaching, Expertise, and Research
Systems Reliability and Maintenance	Teaching, Expertise, and Research
Maritime Safety	Teaching, Expertise, and Research

WORK HISTORY

2017 - present	Associate Professor at Instituto Superior Técnico, University of Lisbon
2007 - 2016	Assistant Professor at Instituto Superior Técnico, University of Lisbon
2005 - 2007	Lecturer at Instituto Superior Técnico, Technical University of Lisbon
1996 - 2005	Research assistant at the Unit of Marine Technology and Engineering, Technical University of Lisbon

MOST RELEVANT PROJECTS

MoniTraffic	Monitoring and Surveillance of Maritime Traffic off the continental coast of Portugal, 01.10.2020 – 30.04.2023 (33 months), Funding Entity: Fundo Azul
MoniRisk	Integrated System for Traffic Monitoring and Maritime Risk Assessment, 10.08.2018 – 09.08.2022 (42 months), Funding Entity: Fundação para a Ciência e a Tecnologia.
AdapRel	Adaptive Methods for Reliability Analysis of Complex Structures, 01.03.2011 – 28.02.2014 (36 months), Funding Entity: Fundação para a Ciência e a Tecnologia.

EDUCATION

2007	Ph.D. in Naval Architecture and Marine Engineering by the Technical University of Lisbon
1998	Degree of Master of Science by the Faculty of Engineering of the Glasgow University
1994	Bachelor's degree in Naval Architecture and Marine Engineering by the Technical University of Lisbon

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Rong H, **Teixeira AP**, Guedes Soares C., (2022), Maritime traffic probabilistic prediction based on ship motion pattern extraction. Reliab Eng Syst Saf; 217:108061. https://doi.org/10.1016/j.ress.2021.108061.

[2] Dinis, D., **A.P. Teixeira**, and C. Guedes Soares, (2020), Probabilistic Approach for Characterising the Static Risk of Ships Using Bayesian Networks. Reliab Eng Syst Saf, 203: 107073. https://doi.org/10.1016/j.ress.2020.107073.

[3] Rong, H., **Teixeira, A.P.** and Guedes Soares, C., (2020), Data mining approach to shipping route characterization and anomaly detection based on AIS data. Ocean Eng, 198: 106936. https://doi.org/10.1016/j.oceaneng.2020.106936.

[4] Yang, Z., Yang, Z., & **Teixeira, A. P.** (2020). Comparative analysis of the impact of new inspection regime on port state control inspection. Transport Policy, 92:65–80. https://doi.org/10.1016/j.tranpol.2020.04.009.

[5] Gaspar, B., **Teixeira, A.P.** and Guedes Soares, C., (2017), Adaptive surrogate model with active refinement combining Kriging and a trust region method. Reliab. Eng. Syst. Saf, 165:277–291. https://doi.org/10.1016/j.ress.2017.03.035.

Tiago Alexandre Rosado Santos

Age: 49

E-mail: tiago.santos@centec.tecnico.ulisboa.pt

Research profile: https://orcid.org/0000-0002-9816-9757

SKILLS

Maritime Transportation	Teaching, Collaboration, and Expertise
Port Organization and Management	Teaching, Collaboration, and Expertise
Intermodality	Teaching, Collaboration, and Expertise

WORK HISTORY

2015 - present	Researcher at Centre for Marine Technology and Ocean Engineering (CENTEC)
2015 - present	Assistant Professor at Instituto Superior Técnico (IST)
2011 - 2014	Invited Professor at Instituto Superior Técnico (IST)
2009 - 2014	Plan approval officer and surveyor at Bureau Veritas

MOST RELEVANT PROJECTS

SHORTSEACHAIN	Evaluation of the competitiveness of short-sea shipping services integrated in supply chains
SISTSUB	Logistics of cargo and passengers for distant oil/gas fields
ROROPROB	Probabilistic Rules-Based Optimal Design of Ro-Ro Passenger Ships

EDUCATION

2007	PhD in Naval Architecture by Instituto Superior Técnico
1999	MSc in Naval Architecture by the University of Glasgow
1995	MSc in Naval Architecture by Instituto Superior Técnico

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Abreu, H., **Santos, T.A.**, Cardoso, V. (2023), Impact of external cost internalization on short sea shipping - the case of the Portugal-Northern Europe trade, Transportation Research Part D: Transport and Environment (accepted for publication).

[2] Alves, R.L.C., **Santos, T.A.** (2022), Cruise ship itinerary design considering port attractiveness for passengers, Research in Transportation Business, 43, 100815. https://doi.org/10.1016/j.rtbm.2022.100815.

[3] **Santos, T.A.**, Martins, P.A., Guedes Soares, C. (2021), The impact of container terminal relocation on hinterland geography, Journal of Transport Geography, Vol. 92, April, 103014. doi.org/10.1016 /j.jtrangeo.2 021.103014.

[4] **Santos, T.A.**, Guedes Soares, C. (2017), Methodology for ship and fleet sizing with application to short sea shipping, Maritime Policy and Management, Vol. 4 7, Issue 7, pp. 859-881. http://dx.doi.org/10.1080/03088839.2017.1349349.

Yordan Garbatov

Age: 62

E-mail: yordan.garbatov@tecnico.ulisboa.pt

Research profile: https://orcid.org/0000-0001-7308-2586

SKILLS

Ship and Offshore Structures	Teaching, Collaboration, and Expertise
Risk-based Structural Design	Teaching, Collaboration, and Expertise
Fatigue and Ultimate Strength	Teaching, Collaboration, and Expertise

WORK HISTORY

2021 - present	Head of Naval Architecture and Marine Engineering Academic Unit
2021 - present	President of the Centre for Marine Technology and Ocean Engineering (CENTEC)
2018 - present	Full Professor at Instituto Superior Técnico (IST)
2009 - 2018	Associate Professor at Instituto Superior Técnico (IST)
1998 - 2009	Assistant Professor at Instituto Superior Técnico (IST)
1995 - 1998	Researcher at the Centre for Marine Technology and Ocean Engineering
1992 - 1995	Manager of Ship Construction and Repair at Shipyard Varna
1989 - 1992	Researcher at the Department of Shipbuilding at the Technical University of Varna
1986 - 1989	Designer at Engine Building Plant

MOST RELEVANT PROJECTS

SHIPLYS	Ship Lifecycle Software Solutions
RISPECT	Risk-based Expert System for Through-Life Ship Structural Inspection and Maintenance New-Build Ship Structural Design
MARSTRUCT	Network of Excellence on Marine Structures

EDUCATION

2013	DSc in Naval Architecture and Ocean Engineering by Instituto Superior Técnico
1998	PhD in Naval Architecture and Ocean Engineering by Instituto Superior Técnico
1986	MSc in Naval Architecture and Ocean Engineering by Technical University of Varna

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Garbatov, Y.**; Guedes Soares, C. Cost and reliability based strategies for fatigue maintenance planning of floating structures. Reliability Engineering & System Safety 2001, 73, 293-301, doi: Doi 10.1016/S0951-8320(01)00059-X.

[2] **Garbatov, Y.**; Guedes Soares, C. Bayesian updating in the reliability assessment of maintained floating structures. Journal of Offshore Mechanics and Arctic Engineering 2002, 124, 139-145, doi:10.1115/1.1493200.

Giles S. Barkley

Age: 58

E-mail: giles.barkley@solent.ac.uk

Research profile: https://www.solent.ac.uk/staff/academic/giles-barkley

SKILLS

Yacht & Powercraft Design	Teaching
Naval Architecture for Small Vessel	Teaching
Hydrodynamics of Sailing Yachts	Project Supervision

WORK HISTORY

1991- present	Solent University, Southampton, Senior Lecturer, and course leader for 3 x yacht Engineering based Degrees.
2018 - present	Lead Lecturer – Representing Solent University on the EMShip Program
1986 -1991	Lloyds Register of Shipping - Trainee and then Structural Ship Surveyor.

MOST RELEVANT PROJECTS

BOL	Experimental Investigation of a Foil Assist System for A 24m Motor Yacht. (Produced for Bernard Olesinski Ltd and Princess Yachts. (July 2021).
Tri-Foiler	The Design of a Low-Emissions Trimaran Fast Ferry with an Investigation into the Applicability of Hydrofoils. (Ongoing)
Race Yacht Development.	Development of a VPP Algorithm for Foil assisted Open 60 IMOCA yachts. (Ongoing).

EDUCATION

1986	BSc(Hons) Ship Science & Dipl(Eng), Southampton University
1992	Chartered Engineer
2021	Senior Fellow Higher Education Academy.

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Barkley, G.S**, Hudson, D.A., Turnock S.R. & Spinney D.R.B. (2007) Are daggerboards & Trimtabs Necessary when Sailing Upwind with a Canting Keel? (RINA Modern Yacht Conference).

[2] **Barkley G**, 'Educating Future Superyacht Designers at Solent University – MSc Superyacht Design'. (RINA Marine Design Conference, Cadiz, Spain -15th – 16th January 2020).

[3] **Barkley G S,** Baker-Berry A, Ghezzi G, - The Design of a Low-Emissions Trimaran Fast Ferry with an Investigation into the Applicability of Hydrofoils. (Paper to be presented in 2023).

Florin Dimitrie Pacuraru

Age: 45

E-mail: florin.pacuraru@ugal.ro

Research profile: https://orcid.org/0000-0001-6168-3886

SKILLS

Naval Architecture, Ship Resistance, CFD	Teaching
Numerical ship hydrodynamics	Collaboration, Expertise, Project Supervision
Experimental ship hydrodynamics	Collaboration, Expertise, Project Supervision

WORK HISTORY

2021 – present	Associate professor, Faculty of Naval Architecture, Dunarea de Jos University of Galati
2016 - present	Senior technical consultant, NAPA, Hull form and hydrodynamics team
2015 - 2021	Assistant professor, Faculty of Naval Architecture, Dunarea de Jos University of Galati
2003 - 2015	Assistant lecturer, Faculty of Naval Architecture, Dunarea de Jos University of Galati

MOST RELEVANT PROJECTS

Project ReNEW	Resilience-centric Smart, Green, Networked EU Inland Waterways, project no. 101069682/15.06.2022
Project GREENCAT	Innovative concept of a floating unit able to collect plastic waste from the water surfaces of rivers and lakes, Project no. 775/10.08.2021
Project INSPIRE	Improving the energy efficiency of passenger ships on the Danube and the Black Sea Area, Project no. 2CI/27.09.2017

EDUCATION

2015	PhD degree in mechanical engineering, Dunarea de Jos University of Galati
2003	Master's degree, Integrated Shipbuilding Master, Faculty of Naval Architecture, Dunarea de Jos of Galati
2002	Bachelor's degree, Economic Engineering in Mechanical Field, Faculty of Naval Architecture, Dunarea de Jos University of Galati

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Pacuraru F**, Mandru A, Bekhit A. CFD Study on Hydrodynamic Performances of a Planing Hull. Journal of Marine Science and Engineering. 2022; 10(10):1523. https://doi.org/10.3390/jmse10101523;

[2] **Pacuraru F**, Domnisoru L, Pacuraru S. On the Comparative Seakeeping Analysis of the Full Scale KCS by Several Hydrodynamic Approaches. Journal of Marine Science and Engineering. 2020; 8(12):962. https://doi.org/10.3390/jmse8120962;

[3] Obreja, D., Domnisoru, L., **Pacuraru, F.**, Integrated System for Data Acquisition and Numerical Analysis of the Ship Resistance Performance in the Towing Tank of Galati University, Romanian Journal of Physics, Volume 53, Nos.1-2, pp.133-143, Bucharest, 2008;

[4] **Pacuraru, F.**, Domnisoru, L., Numerical Investigation of Shallow Water Effect on a Barge Ship Resistance, ModTech 2017 5th International Conference - Modern Technologies in Industrial Engineering (IOP Conference Series: Materials Science and Engineering), Vol. 227, 2017;

Leonard Domnisoru

Age: 56

E-mail: leonard.domnisoru@ugal.ro

Research profile: https://orcid.org/0000-0003-3447-1655

SKILLS

Finite Element Method in Shipbuilding, Seakeeping, Local and Global Ship Vibrations, Structural Analysis and Hydroelasticity	Teaching
Numerical and experimental analysis of naval structures	Collaboration, Expertise, Project Supervision
Numerical and experimental analysis of the ship dynamics	Collaboration, Expertise, Project Supervision

WORK HISTORY

2002 - present	Professor, Faculty of Naval Architecture, Dunarea de Jos University of Galati
1998 - 2002	Associate professor, Faculty of Naval Architecture, Dunarea de Jos University of Galati
1996- 1998	Lecturer, Faculty of Naval Architecture, Dunarea de Jos University of Galati
1993- 1996	Assistant professor, Faculty of Naval Architecture, Dunarea de Jos University of Galati
1990 - 1993	Assistant, Faculty of Naval Architecture, Dunarea de Jos University of Galati

MOST RELEVANT PROJECTS

Project ReNEW	Resilience-centric Smart, Green, Networked EU Inland Waterways, project no. 101069682/15.06.2022
Project REXDAN	Integrated System for Complex research and monitoring of the environment in the Danube River Area, Contract no. 309/10.07.2020
MARSTRUCT	Network of Excellence on Marine Structures, Project No.FP6-PLT-506141, Contract No.TNE3-CT-2003-506141

EDUCATION

1996	PhD degree in mechanical engineering, Dunarea de Jos University of Galati
1990	Bachelor's degree, Shipbuilding, Faculty of Mechanics, Dunarea de Jos University of Galati

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Pacuraru F, **Domnisoru L**, Pacuraru S. On the Comparative Seakeeping Analysis of the Full Scale KCS by Several Hydrodynamic Approaches. Journal of Marine Science and Engineering. 2020; 8(12):962. https://doi.org/10.3390/jmse8120962;

[2] Pacuraru, F., **Domnisoru, L.**, Numerical Investigation of Shallow Water Effect on a Barge Ship Resistance, ModTech 2017 5th International Conference - Modern Technologies in Industrial Engineering (IOP Conference Series: Materials Science and Engineering), Vol. 227, 2017;

[3] **Domnisoru, L.**, Domnisoru, D., 2008, The Numerical Analysis of Transitory Dynamic Response, based on the Non-linear Hydroelasticity Theory, for a Barge Test Ship, Romanian Journal of Physics, Volume 53, Number 1-2, pp.129-136, Bucharest, 2008;

[4] Obreja, D., **Domnisoru, L.**, Pacuraru, F., Integrated System for Data Acquisition and Numerical Analysis of the Ship Resistance Performance in the Towing Tank of Galati University, Romanian Journal of Physics, Volume 53, Nos.1-2, pp.133-143, Bucharest, 2008.

Sandita Pacuraru

Age: 44

E-mail: sorina.pacuraru@ugal.ro

Research profile: https://orcid.org/0000-0001-6512-0845

SKILLS

Offshore engineering course & Special Ships	Teaching
Director of Naval Architecture Research Center, Dunarea de Jos University of Galati	Expertise and Project Supervision
Member of WEGEMT Executive committee since 2022	Collaboration & Expertise

WORK HISTORY

2021- present	Associate professor, Naval Architecture Department, Dunarea de Jos University of Galati
2015 - 2021	Assistant professor, Naval Architecture Department, Dunarea de Jos University of Galati
2002 - 2015	Assistant lecturer, Naval Architecture Department, Dunarea de Jos University of Galati

MOST RELEVANT PROJECTS

Project ReNEW	Resilience-centric Smart, Green, Networked EU Inland Waterways, project no. 101069682/15.06.2022
Project GREENCAT	Innovative concept of a floating unit able to collect plastic waste from the water surfaces of rivers and lakes
Project COMPETICER	Excellence research from the "Lower Danube" University in Galati - pole of competitiveness and performance, project no. CNFIS-FDI-2019-0063

EDUCATION

2014	PhD degree in mechanical engineering, Dunarea de Jos University of Galati
2009	Bachelor's degree, Naval Architecture, Faculty of Naval Architecture, Dunarea de Jos of Galati
2003	Master's degree, Integrated Shipbuilding Master, Faculty of Naval Architecture, Dunarea de Jos of Galati
2002	Bachelor's degree, Economic Engineering in Mechanical Field, Faculty of Naval Architecture, Dunarea de Jos University of Galati

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Sandita Pacuraru**, Leonard Domnisoru, Adham Bekhit, NUMERICAL SIMULATION FOR THE MOTION RESPONSE OF AN OFFSHORE AHTS SHIP IN REGULAR AND IRREGULAR WAVES, International Journal of Modern Manufacturing Technologies ISSN 2067–3604, Vol. XIV, No. 3 / 2022, https://doi.org/ 10.54684/ijmmt.2022.14.3.174;

[2] Pacuraru Florin, Domnisoru, Leonard, **Pacuraru Sandita**, On the Comparative Seakeeping Analysis of the Full Scale KCS by Several Hydrodynamic Approaches, Journal of Marine Science and Engineering, MDPI Publisher, Volume8, Issue12, Article Number 962, DOI10.3390/jmse8120962, WOS:000602093000001, 2020, IF 2.74;

[3] Obreja D., Nabergoj, R., Crudu, L., **Pacuraru-Popoiu S.**, Identification of hydrodynamic coefficients for manoeuvring simulation model of a fishing vessel, Journal of Ocean engineering, Vol. 37, ISSN 0029-8018, Issue. 8-9, Pag.678-687, DOI10.1016/j.oceaneng.2010.01.009, WOS:000278355700003, 2010, IF 3.795.

Evert R.W. Lataire

Age: 43

E-mail: evert.lataire@ugent.be

Research profile: https://orcid.org/0000-0002-3551-6686

SKILLS

Ship structure	Teaching, Collaboration, Expertise, Project Supervision
Ship hydrodynamics and seakeeping	Teaching, Collaboration, Expertise, Project Supervision
Experimental model tests (towing tank) and simulations	Teaching, Collaboration, Expertise, Project Supervision

WORK HISTORY

2019 - present	Professor Head of Maritime Technology Division, Ghent University
2010 - present	Lecturer (20%) Antwerp Maritime Academy
2015 - 2019	Doctor Assistant Maritime Technology Division, Ghent University
2008 – 2015	Assistant Maritime Technology Division, Ghent University
2004 – 2008	Researcher Maritime Technology Division, Ghent University

MOST RELEVANT PROJECTS

MASHCON	Founding member of the Knowledge Centre Ship Manoeuvring in Shallow and Confined Water
Shallow water towing tank	From the beginning to the present finalization of the new shallow water towing tank in Ostend, Belgium
Simulator development	Series of projects delivering scientific support to improve the full mission bridge simulators of Flanders Hydraulcis Research

EDUCATION

2014	PhD in Maritime Engineering
2004	MSc Marine Technology

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Bagué, A., Degroote, J., Demeester, T., & **Lataire, E.** (2020). Typhoon: a vortex-lattice method for assessing dynamic stability characteristics of hydrofoil crafts. Presented at the 26th HISWA International Symposium on Yacht Design and Yacht Construction, Amsterdam, the Netherlands.

[2] Van Zwijnsvoorde, T., Donatini, L., Van Hoydonck, W., & **Lataire, E.** (2019). Wind modeling for large container vessels : a critical review of the calculation procedure. INTERNATIONAL JOURNAL OF TRANSPORT DEVELOPMENT AND INTEGRATION, 3(4), 369–381.

[3] Chen, Changyuan, Guillaume Delefortrie, and **Evert Lataire**. 2021. "Effects of Water Depth and Speed on Ship Motion Control from Medium Deep to Very Shallow Water." OCEAN ENGINEERING 231. doi:10.1016/j.oceaneng.2021.109102.

[4] **Lataire, E.,** Vantorre, M., Delefortrie, G., The Influence of the Ship's Speed and Distance to an Arbitrarily Shaped Bank on Bank Effects In Journal of Offshore Mechanics and Arctic Engineering, 140(2), 021304 (Feb 07, 2018) (IF 2016 0.993)

Guillaume A. Delefortrie

Age: 44

E-mail: guillaume.delefortrie@ugent.be

Research profile: https://orcid.org/0000-0003-4109-3330

SKILLS

Towing tank tests	Teaching, Collaboration, Expertise, Project Supervision
Ship manoeuvring	Teaching, Collaboration, Expertise, Project Supervision
Ship hydrodynamics	Teaching, Collaboration, Expertise, Project Supervision

WORK HISTORY

2022 - present	Associate Professor at Ghent University
2012 - 2022	Expert Nautical Research at Flanders Hydraulics Research
2018 - 2022	Visiting Professor at Ghent University
2008 - 2012	Junior Expert Nautical Research at Flanders Hydraulics Research

MOST RELEVANT PROJECTS

ITTC	Chairman and twice secretary of 27th- 29th ITTC Manoeuvring Committees
FML	Initiative to construct Flanders Maritime Laboratory (host for Towing Tank for Manoeuvres in Shallow Water)
ACP	Model tests for design of approach structure to third lane (new Panama locks)

EDUCATION

2007	PhD in Naval Architecture
2001	MSc in Naval Architecture

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Delefortrie, G.**, Van Hoydonck, W., Eloot, K. (2022) Forces and Torque acting on a Rudder while Manoeuvring, Journal of Marine Science and Technology, https://doi.org/10.1007/s00773-021-00840-y

[2] **Delefortrie, G.,** Eloot, K. (2021) The effect of uncoupled propulsion and steering on the manoeuvring behaviour in coastal waters. Ocean Engineering, Vol. 235, 1 September 2021, 109347. https://doi.org/10.1016/j.oceaneng.2021.109347.

[3] **Delefortrie, G.**, Tello Ruiz, M., Vantorre, M. (2018) Manoeuvring model of an estuary container vessel with two interacting Z-drives. Journal of Marine Science and Technology, Vol. 23, No 4, pp. 739-753.

[4] **Delefortrie, G.**, Vantorre, M., Verzhbitskaya, E., Seynaeve K. (2007) Evaluation of safety of navigation in muddy areas through real-time manoeuvring simulations. Journal of Waterway, Port, Coastal and Ocean Engineering, Vol. 132, no. 2, p. 125-135.

Loccufier Mia J. M.

Age: 55

E-mail: mia.Loccufier@ugent.be

Research profile: https://orcid.org/0000-0001-9584-8378

SKILLS

Mechanical vibrations	Teaching, Collaboration, Expertise, or Project Supervision
Structural dynamics	Teaching, Collaboration, Expertise, or Project Supervision
Modelling and control of dynamical systems	Teaching, Collaboration, Expertise, or Project Supervision

WORK HISTORY

2008 - present	Associate professor Dept. of Electromechanical, Systems- and Metals Engineering
1999 - 2008	Assistant professor Dept. of Electromechanical, Systems- and Metals Engineering
1997 - 1999	Doctor-assistant Dept. of Electromechanical, Systems- and Metals Engineering
1991 - 1997	Assistant Dept. of Electromechanical, Systems- and Metals Engineering

MOST RELEVANT PROJECTS

SIGOURUS	Crack monitoring of metal structures via electro-mechanical impedance technology
RoViON	Rotational vibration absorber with optimized nonlinear restoring characteristic
SafeLife	Lifetime prediction and management of fatigue loaded welded steel structures based on structural health monitoring

EDUCATION

1996	PhD Mechanical Engineering
1992	MSc Automatic Control Engineer
1990	MSc Mechanical Engineer

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Dekemele, Kevin, Giuseppe Habib, and **Mia Loccufier**. 2022. "The Periodically Extended Stiffness Nonlinear Energy Sink." MECHANICAL SYSTEMS AND SIGNAL PROCESSING 169. doi:10.1016/j.ymssp.2021.108706..

[2] Khayatazad, Mojtaba, **Mia Loccufier**, and Wim De Waele. 2021. "Electrical Admittance of a Circular Piezoelectric Transducer and Chargeless Deformation Effect." SMART MATERIALS AND STRUCTURES 30 (8). doi:10.1088/1361-665X/ac0dcf.

[3] Dekemele, Kevin, Patrick Van Torre, and **Mia Loccufier**. 2021. "High-Voltage Synthetic Inductor for Vibration Damping in Resonant Piezoelectric Shunt." JOURNAL OF VIBRATION AND CONTROL 27 (17–18): 2047–2057. doi:10.1177/1077546320952612.

[4] Dekemele, Kevin, Patrick Van Torre, and **Mia Loccufier**. 2019. "Performance and Tuning of a Chaotic Bi-Stable NES to Mitigate Transient Vibrations." NONLINEAR DYNAMICS 98 (3): 1831–1851. doi:10.1007/s11071-019-05291-0.

Pablo G. Morato

Age: 30

E-mail: pgmorato@uliege.be

Research profile: https://orcid.org/0000-0002-2744-0650

SKILLS

Decision-making under uncertainty	Expertise, Project
Marine and offshore structures	Teaching, Expertise
Probabilistic methods and machine learning	Teaching, Expertise
Offshore wind energy	Collaboration, Project

WORK HISTORY

2021 - present	Postdoctoral Researcher at the University of Liège, Belgium.
2017 - 2021	Research Engineer at the University of Liège, Belgium.
2016	Research Intern at the University of Michigan, USA.

MOST RELEVANT PROJECTS

PhairywinD	Belgian academic offshore wind network for young researchers.
MaxWind	MAintenance, Inspection and EXploitation Optimization of Offshore Wind Farms subjected to Corrosion-Fatigue.
C-Nergy	Multi-functional Island Research Project.

EDUCATION

2021	Ph.D. in Engineering Science, University of Liège, Belgium.
2017	M.Sc. in Advanced Ship Design and Offshore Structures (EMship). University of Liège, Belgium; École Centrale de Nantes, France.
2015	M.Sc. in Sustainable Engineering (Offshore Renewable Energy). University of Strathclyde, the United Kingdom.
2014	B.Eng. in Maritime Engineering. Polytechnic University of Madrid, Spain.

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Morato, P. G.**, Papakonstantinou, K. G., Andriotis, C. P., Nielsen, J. S. and Rigo P. (2022). Optimal inspection and maintenance planning for deteriorating structural components through dynamic Bayesian networks and Markov decision processes. *Structural Safety*, 94, pp. 102140. 10.1016/j.strusafe.2021.102140.

[2] Hlaing, N., **Morato, P. G.**, Nielsen, J. S., Amirafshari, P., Kolios, A. and Rigo, P. (2022). Inspection and maintenance planning for offshore wind structural components: integrating fatigue failure criteria with Bayesian networks and Markov decision processes. *Structure and Infrastructure Engineering*, 18(7), 1-19. 10.1080/15732479.2022.2037667.

Philippe Rigo

Age: 63 years

E-mail: Ph.Rigo@uliege.be

Research profile: http://orbi.uliege.be/ph-search?uid=p001477

SKILLS

Ships and Offshore Structures,	Teaching, Project
Offshore Wind Turbine	Research, Project
Ultimate Strength, Crashworthiness and Optimisation	Research, Project

WORK HISTORY

2008 - Present	Professor, University of Liege, Head of ANAST, Belgium
1999 - 2000	Visiting Prof. University of Michigan (Naval Architecture), USA
1991 – 2008	Research Director, National Funds of Scientific Research (FNRS)
1990 – 1991	University of Kyoto, Postdoc, Japan
1983 - 1990	Research Associate, Univ. of Liege, Belgium.

MOST RELEVANT PROJECTS

EMSHIP +	Coordinator since 2010 of the EMSHIP Erasmus Mundus Master (www.emhip.eu)
HOLISHIP	H2020, 2016 – 2020 - Ship Structure Optimization
LBR5	Ship Structure Optimisation, Least cost optimization (developer)
ISSC	Co-Chairman 2015-2018; Members of ISSC committee since 1999

EDUCATION

1999	Highest Academic Degree delivered in Belgium), University of Liège,
1988	PhD in Engineering, Univ of Liege
1982 & 1985	Civil Engineer (Ir.); Naval Architect (MSc)

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Bela, A., Le Sourne, H., Buldgen, L., **Rigo, P.** (2017). Ship collision analysis on Offshore Wind Turbine monopile foundations. *Marine Structures, 51*, 220-241. http://hdl.handle.net/2268/204003.

[2] Caprace, J.-D., Petcu, C., Velarde, M., **Rigo, P.** (2013). Optimization of Shipyard Space Allocation and Scheduling using Heuristic Algorithm. *Journal of Marine Science & Technology, 18*(3), 404-417. http://hdl.handle.net/2268/154022.

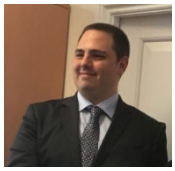
[3] **Rigo, P**., & Rizzutto, E. (2003). Analysis and Design of Ship Structure (Chap 18). *Ship Design and Construction (Vol 1)* (T. Lamb, pp. 18-76). USA: SNAME., http://hdl.handle.net/2268/28142.

Gianmarco Vergassola

Age: 32

E-mail: gianmarco.vergassola@unige.it

Research profile: https://orcid.org/0000-0002-5462-7437



SKILLS

Ship and pleasure craft structures	Teaching, Expertise
Finite Element Analysis	Teaching, Expertise
Experimental and numerical models for noise and vibration propagation	Teaching, Expertise

WORK HISTORY

2022 - present	Researcher in Naval Structural Architecture @ DITEN – University of Genova
2019 - 2022	Postdoc Researcher in Naval Structural Architecture @ DITEN – University of Genova
2014 - 2019	PhD in Naval Structural Architecture @ DITEN – University of Genova

MOST RELEVANT PROJECTS

SILENTYACHT	Methodologies for reducing the noise and vibration propagation on board superyachts and megayachts using numerical models
GRAPER	Structural glass integration in ship structures

EDUCATION

2019	PhD in Naval Structural Architecture @ DITEN – University of Genova
2014	M.Sc. in Pleasure Craft design @ University of Genova
2012	B.Eng in Pleasure Craft design @ University of Genova

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Vergassola G.**, (2020) The prediction of noise propagation onboard pleasure crafts in the early design stage, Journal of Ocean Engineering and Marine Energy, doi: 10.1007/s40722-019-00149-4, Vol. 6, Issue 1, February 2020 pp. 15-30.

[2] **Vergassola G.**, Pais T., Boote D. (2019) Low - Frequency analysis of super yacht free vibrations. Ocean Engineering, vol. 176, p. 199-210, ISSN: 0029-8018, doi: 10.1016/j.oceaneng.2019.02.037

[3] **Vergassola G.**, Boote D. (2019) Numerical and experimental comparison of the dynamic behaviour of superyacht structure. Ships and Offshore Structures, ISSN:1744-5302, doi: 10.1080/17445302.2018.1546451, Vol.6, Issue S1 pp. S1-S8.

[4] **Vergassola G.**, Pais T., Boote D., Rasori S., Tonelli A., (2021) An experimental-driven methodology for the evaluation of pre-tension of stays and shrouds for large sailing vessels, Ocean Engineering, doi: 10.1016/j.oceaneng.2021.109775, Vol 238

Tatiana Pais

Age: 38

E-mail: tatiana.pais@unige.it

Research profile: https://orcid.org/0000-0003-0789-5786

SKILLS

Ship and pleasure craft structures	Teaching, Expertise
Finite Element Analysis	Teaching, Expertise
Experimental and numerical model for noise and vibration propagation	Teaching, Expertise

WORK HISTORY

2019 - present	Researcher in Naval Structural Architecture @ DITEN – University of Genova
2016 - 2019	PostDoc Researcher in Naval Structural Architecture @ DITEN – University of Genova
2013 - 2016	PhD in Naval Structural Architecture @ DITEN – University of Genova

MOST RELEVANT PROJECTS

ASAMS	Specialized aspects and methodological approach for the design of latest generation submarines (ASAMS) funded by the Italian Ministry of Defense.
TPA	Ship vibro-acoustic environmental sustainability by transfer path analysis technique; Financed by CETENA S.p.A

EDUCATION

2016	PhD in Naval Structural Architecture @ DITEN – University of Genova
2012	Master Industrial Plants Engineering and Technologies
2011	Master of Science in Naval Architecture & Marine Engineering @ University of Genova
2008	Bachelor's degree in Naval Architecture & Marine Engineering @ University of Genova

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Vergassola G., **Pais T.**, Boote D. (2019) *Low - Frequency analysis of super yacht free vibrations*. OCEAN ENGINEERING, vol. 176, p. 199-210, ISSN: 0029-8018, doi: 10.1016/j.oceaneng.2019.02.037

[2] **Pais T.**, Boote D., Vergassola G. (2018) *Vibration analysis for the comfort assessment of a superyacht under hydrodynamic loads due to mechanical propulsion*. Ocean Engineering, Volume 155, Pages 310 – 323, ISSN 00298018 DOI: 10.1016/j.oceaneng.2018.02.058

[3] **Pais T**, Gaiotti M., Rizzo C. (2022) *A Quick and Practical Approach for Concept-design of Submerged Thin-walled Stiffened Cylinders,* Journal of Marine Science and Application, Volume 21, Issue 3, Pages 138 – 154, ISSN 16719433, DOI 10.1007/s11804-022-00280-z

[4] Silvestri P., **Pais T.**, Gaggero F., Bassetti M., (2021) *Dynamic Characterization of Steel Decks with Damping Material by Impact Test*, International Journal of Structural Stability and Dynamics, Volume 21, Issue 7, ISSN 02194554, DOI 10.1142/S0219455421500966

Antonio Crucelaegui Corvinos

Age: 66

E-mail: antonio.crucelaegui@upm.es

Research profile: https://orcid.org/0000-0001-5362-9863

SKILLS

Marine Renewable Energies	Teaching
Ships Design and Manufacture	Expertise
Integrated Logistics Support	Teaching and Expertise

WORK HISTORY

2021 - present	Director (Dean) of ETS Ingenieros Navales (UPM)
2017 - present	Lecturer in the Master`s Degree on Marine Renewable Energies Harnessing
1982 - present	Assistant Professor ETS Ingenieros Navales (UPM)
1990 - 2016	CEO of a Consultancy Company for Shipbuilders and Shipowners
1981 - 1988	Chief of Dpt. Systems Analysis at Navantia (Navy Shipbuilder)

MOST RELEVANT PROJECTS

P1	Definition and implementation of new telematic management processes for simultaneous engineering and production work of shipyards with the auxiliary industry – 2011 - 2013
P2	Evaluation of coordinated actions in the technical-commercial and budgetary fields for the construction and ship repair sector in Spain and the consequent development of data integration platforms and management content"– 2004 - 2007

EDUCATION

2004	Master's in business administration – Instituto de Empresa - Madrid
1982	Dr. Ingeniero Naval (Ph. Doctor) (Universidad Politecnica de Madrid)
1979	Master Science Ingeniero Naval (Universidad Politecnica de Madrid)

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **A. Crucelaegui**. 1985 Geometry & hulls representation. CAD in hulls design. ETSIN, UPM.

[2] **A. Crucelaegui**. 1986 Getting the hull geometry defined with b-splines from a previous definition with parabolic sections". ETSIN, UPM.

[3] **A. Crucelaegui**. 1986 Programmes for the simulation of the unloading of a supply vessel for using in the project stage and for ship operation. Computational Mechanics Institute & Springer-Verlag (UK).

[4] **A. Crucelaegui.** 1988 Interactive Deadwork Design. Marine & Offshore applications. Springer-Verlag.

[5] **A. Crucelaegui** et al. 1988 Computer-assisted Design, Engineering & N.Construction. State of the Art. AINE.

[6] **A. Crucelaegui** et al. 2022 Large-Scale Maritime Transport of Hydrogen: Economic Comparison of Liquid Hydrogen and Methanol. ACS Sustainable Chemistry & Engineering.

José Luis Morán González

Age: 55

E-mail: joseluis.moran@upm.es

Research profile: https://orcid.org/0000-0003-2633-1265

SKILLS

Marine Renewable Energies	Manager and Teaching
Green Hydrogen Projects	Manager, Development and Construction
Solar Projects, PV and CSP	Manager, Development and Construction

WORK HISTORY

2020 - present	Director of Integrated Energy Solutions, Green Enesys and Viridi
2018 - present	General coordinator and lecturer in the Master's Degree on Marine Renewable Energies Harnessing
1997 - present	Lecturer, E.T.S.I. Navales (UPM)
2010 - 2020	Director of Solar Business Unit, Siemens SA
2007 - 2010	President, Solel Energía Solar Renovable

MOST RELEVANT PROJECTS

SolWinHy Cádiz	Green Methanol generated with PV and Wind off-grid and exported to Germany
Lebrija CSP	50 MWe Concentrated Solar Power project in Andalucía
MAERM	Creation of Master's Degree on Marine Renewable Energies Harnessing

EDUCATION

2001	Ph.D. in Naval Architecture and Marine Engineering. Universidad Politécnica de Madrid, Spain
1993	Specialist in Space Vehicles Technology. Universidad Politécnica de Madrid, Spain.
1992	B.S. in Naval Architecture and Marine Engineering. Universidad Politécnica de Madrid, Spain.

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Amable López, **José Luis Morán**, Luis Ramón Núñez, José Andrés Somolinos, 2019, "Study of a Cost Model of Tidal Energy Farms in Early Design Phases with Parametrization and Numerical Values. Application to a Second-Generation Device", Renewable and Sustainable Energy Reviews, ISSN 1364-0321, vol. 117., DOI: https://doi.org/10.1016/j.rser.2019.109497

[2] Antonio Villalba-Herreros, María Ramos Gómez1, **José Luis Morán**, Teresa J Leo, 2019, "Emissions and noise reduction on-board an oceanographic vessel thanks to the use of proton-exchange membrane fuel cells", Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment, ISSN: 1475-0902, DOI: https://doi.org/10.1177/1475090219858819

[3] Luis R. Núñez-Rivas, Amable López-Piñeiro, Teresa J. Leo, **José L. Moran**, 2010, "Comparative analysis between hydroelectric developments and tidal stream developments", Journal of Marine Technology and Environment, vol. 2, ISSN: 1844-6116.

Simone Saettone

Age: 33

E-mail: simone.saettone@upm.es

Research profile: https://orcid.org/0000-0003-2050-1366

SKILLS

Experimental Methods in Marine Hydrodynamics	Teaching, Expertise and Project Supervision
Numerical Methods in Marine Hydrodynamics	Teaching, Expertise and Project Supervision

WORK HISTORY

2022 - present	Assistant Professor at the Technical University of Madrid
2021 - present	Assistant Coordinator of the European Master´s Course in Advanced Design in Ship and Offshore Structures
2021 - 2022	Postdoctoral Research Associate at the Technical University of Madrid
2016 - 2017	Research Engineer at MAN Energy Solutions
2015 - 2016	Research Assistant at the Technical University of Denmark

MOST RELEVANT PROJECTS

P1	Experimental Campaign for RECsolar
P2	Experimental Campaign for a Double-Ended Ferry Model
P3	Experimental Campaign for ATOMS Technology

EDUCATION

2020	Double PhD from the Technical University of Denmark & Norwegian University of Science and Technology
2014	Master's Degree in Naval Architecture and Marine Engineering from the University of Genoa
2011	Bachelor's Degree in Naval Architecture and Marine Engineering from the University of Genoa

MOST RELEVANT JOURNAL PUBLICATIONS

[1] **Saettone, S.**, Tavakoli, S., Taskar, B., Jensen, M.V., Pedersen, E., Schramm, J., Steen, S. and Andersen, P., 2020. The importance of the engine-propeller model accuracy on the performance prediction of a marine propulsion system in the presence of waves. Applied Ocean Research, 103, p.102320.

[2] **Saettone, S.**, Lopez-Olocco, T., Medina-Manuel, A., Taskar, B., Steen, S. and Andersen, P., 2022. Experimental measurements of propulsive factors in regular deep-water following waves for a fishing trawler. Ocean Engineering, 263, p.112167.

[3] **Saettone, S.**, Taskar, B., Steen, S. and Andersen, P., 2021. Experimental measurements of propulsive factors in following and head waves. Applied Ocean Research, 111, p.102639.

[4] **Saettone, S.**, Taskar, B., Regener, P.B., Steen, S. and Andersen, P., 2020. A comparison between fully-unsteady and quasi-steady approach for the prediction of the propeller performance in waves. Applied Ocean Research, 99, p.102011.

[5] **Saettone, S.**, Fernandez, E.M., Gómez, C.S., Ynocente, L.A.S., Campayo, D.D., Souto-Iglesias, A. and Loureiro, A.M., 2022. A particle image velocimetry investigation of the flow field close to a heave plate for models of different scales. Applied Ocean Research, 129, p.103387.

[6] Tavakoli, S., **Saettone, S.**, Steen, S., Andersen, P., Schramm, J. and Pedersen, E., 2020. Modeling and analysis of performance and emissions of marine lean-burn natural gas engine propulsion in waves. Applied Energy, 279, p.115904.

Florian Sprenger

Age: 44

E-mail: florian.sprenger@uni-rostock.de

Research profile: https://www.lsb.uni-rostock.de/en/team/florian-sprenger/

SKILLS

Ship design for real operational conditions	Expertise & Teaching
Experimental and numerical ship hydrodynamics	Expertise & Teaching
Seakeeping performance of ships	Expertise
Marine operations	Expertise

WORK HISTORY

2021 - present	Professor and Chair Holder in Ship Design at the University of Rostock, Germany
2017 - 2021	Research Program Manager and Coordinator of the ERA-NET Cofund MarTERA at Project Management Jülich, Berlin, Germany
2013 - 2017	Project Manager at MARINTEK/SINTEF Ocean, Trondheim, Norway
2006 - 2012	Research Scientist at the Ocean Engineering Division of the Technical University of Berlin, Germany

MOST RELEVANT PROJECTS

DigitShip	Acquisition, Analysis and Utilisation of Operational Data for Efficient and Safe Ships (BMWK)
HOLISHIP	Holistic optimisation of Ship design and operation for life cycle (EU H2020)
SFI MOVE	Centre for Research-based Innovation in Marine Operations (NFR)
SHOPERA	Energy Efficient Safe Ship Operation (EU FP7)

EDUCATION

2012	PhD at Technical University of Berlin, Germany. Title of the Thesis: Challenges of Offshore LNG-Transfer
2006	Graduation (Diploma) in Naval Architecture and Ocean Engineering at Technical University of Berlin, Germany and University of Strathclyde, UK

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Liu S., **Sprenger F.**, Papanikolaou A., Dafermos G. and Zaraphonitis, G. (2020), Experimental and Numerical Studies on Linear and Nonlinear Seakeeping Phenomena of the DTC Ship in Regular Waves, Ship Technology Research vo. 68, Nr. 1, pp. 41-61.

[2] Gutsch, M., Steen, S. and **Sprenger, F.** (2020), Operability Robustness Index as Seakeeping Performance Criterion for Offshore Vessels, Ocean Engineering, Vol .217.

[3] **Sprenger, F.**, Maron, A., Delefortrie, G., van Zwijnsvoorde, T., Cura-Hochbaum, A., Lengwinat, A. and Papanikolaou, A. (2017), Experimental Studies on Seakeeping and Manoeuvrability in Adverse Conditions, Journal of Ship Research.

Patrick Kaeding

Age: 50

E-mail: patrick.kaeding@uni-rostock.de

Research profile: https://www.lsk.uni-rostock.de/en/

SKILLS

Structural Design	Teaching
Finite Element Analysis	Expertise
Analytical and Numerical Modelling	Expertise
Ultimate Strength Analysis	Expertise

WORK HISTORY

2015 - present	Vice-Rector of Academic Studies, Teaching and Evaluation, Univ. of Rostock
2009 - present	University of Rostock, Faculty of Mechanical Engineering and Marine Technology, Professor holding the Chair of Ship Structures
2005 - 2009	ThyssenKrupp Marine Systems: Research, Development & Product Development
2001 - 2005	ThyssenKrupp Marine Systems: Structural Analysis

MOST RELEVANT PROJECTS

3D Vorm	Forming of Thick Plates, 2010-2013
POLAR	Production, Operations and Living in Arctic Regions, 2010-2013
SOF	Floating Offshore Foundations, 2010-2013
DüsenForm	Forming of Ducts, 2013-2015
Liquid Energy	Liquefied (bio-)gas for development and use of green energy technologies, 2020-2023

EDUCATION

2001	Doctor of Engineering, Hiroshima University, Japan
1998	Dipl.-Ing. (Schiffbau), University of Hamburg

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Lindemann, T, **Kaeding, P** (2019). Investigations on the Influence of Shear and Lateral Loads on the Collapse Behaviour of Plate Structures under Inplane Thrust, Ship Technology Research (Schiffstechnik), Taylor & Francis, Vol. 66, No. 1, 38-56.

[2] Lindemann, T, **Kaeding, P** (2017). Application of the Idealized Structural Unit Method for Ultimate Strength Analyses of Stiffened Plate Structures, Ship Technology Research, Taylor & Francis, Vol. 64, No. 1, 15-29.

[3] Committee Members (2015). Ultimate Strength, Report of Committee III.1, 19th International Ship and Offshore Structures Congress (ISSC), Cascais, Portugal, Vol 1: 279-350.

[4] Committee Members (2012). Ultimate Strength, Report of Committee III.1, 18th International Ship and Offshore Structures Congress (ISSC), Rostock, Germany, Vol 1: 285-364.

Sascha Kosleck

Age: 46

E-mail: sascha.kosleck@uni-rostock.de

Research profile: https://www.lmt.uni-rostock.de/en/lehrstuhl/team/lehrstuhlinhaber/

SKILLS

Underwater technology	Expertise & Teaching
Hydrodynamics of floating and maritime structures	Expertise & Teaching
Model tests in naval architecture and maritime technology	Expertise
Maritime renewable energies	Expertise

WORK HISTORY

2022 - present	Head of the Department of Maritime Systems at the Interdisciplinary Faculty of the University of Rostock
2019 - present	Full Professor and Chair of Ocean Engineering at the Faculty of Mechanical Engineering and Marine Technologies of the University of Rostock
2013 - 2019	Head of Maritime Engineering at Auckland University of Technology, Auckland, New Zealand
2004 - 2012	Project Manager / Project Engineer, Department of Marine Engineering, Technical University of Berlin

MOST RELEVANT PROJECTS

OTC	Ocean Technology Campus Rostock – Cluster development for sustainable use of seas
Deep-Sea	Development and Evaluation of Photonic Sensor Components for Coastal Environmental Monitoring and Assessment of Marine Resources
DSS-Simusense	Simulation of system dynamics and development of sensor systems
MuWIN	Multi-use floating offshore topside structure for Wind Energy

EDUCATION

2013	Dr.-Ing., PhD thesis: Prediction of Wave-Structure Interaction by Advanced Wave Field Forecast, Department of Marine Engineering, Technische Universität Berlin
2004	Dipl.-Ing. in Civil Engineering, Technical University of Berlin

MOST RELEVANT JOURNAL PUBLICATIONS

[1] Clement, C., **Kosleck, S.**, Lie, T. (2021), Investigation of viscous damping effect on the coupled dynamic response of a hybrid floating platform concept for offshore wind turbines, Ocean Engineering, Vol. 225, Article number 108836.

[2] Schacht, S., **Kosleck, S.** (2022), Analysis of Fluid Induced Transverse Forces on Multi-Strand Twisted Ropes, Proceedings of the 41st International Conference on Ocean, Offshore and Arctic Engineering, OMAE, Hamburg.

[3] Krohmann, S., Rautmann, L.L., Glatzer, L., **Kosleck, S.** (2022), Experimental Studies of Additive Manufacturing for Subsea Enclosures, Proceedings of the 41st International Conference on Ocean, Offshore and Arctic Engineering, OMAE, Hamburg.