Dr. Christian Windt

Personal information

Date of birth:	11.08.1990
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Research interest

Hydrodynamic modelling, numerical modelling, wave energy conversion, marine renewable energy, CFD, experimental modelling, fluid dynamics

Education

01/01/2024 - present	Habilitation (mentoring Prof. Nils Goseberg), "Wave-structure-soil interaction of marine structures: Advancements in experimental and numerical modelling approaches", *Technische Universität Braunschweig, Braunschweig, Germany*
01/12/2016 – 03/11/2020	PhD, supervised by Prof. John V. Ringwood, "High-Fidelity Numerical Modelling of Ocean Wave Energy System" *Centre for Ocean Energy Research (COER), Department of Electronic Engineering, Maynooth University, Maynooth Ireland*
01/10/2013 - 08/07/2016	M.Sc. Energy Systems, *Hamburg University of Technology, Hamburg, Germany*
01/10/2010 - 14/10/2013	B.Sc. Mechanical Engineering (Specification Energy Technology), *Hamburg University of Technology, Hamburg, Germany*

Professional Experience

01/01/2024 – present	Senior postdoctoral researcher, *Technische Universität Braunschweig, Leichtweiß-Institute for hydraulic engineering and water resources (LWI), Division Hydromechanics, Coastal and Ocean Engineering* Senior post-doctoral researcher responsible for teaching, project acquisition and leadership (e.g. INF^{4}INiTY), finances, co-supervision (PostDocs and PhDs)
07/09/2020 – 31/12/2023	Research project coordinator NuLIMAS, *Technische Universität Braunschweig, Leichtweiß-Institute for hydraulic engineering and water resources (LWI), Division Hydromechanics, Coastal and Ocean Engineering* Post-doctoral researcher responsible for project leadership, finances, PhD co-supervision
23/10/2015 – 01/06/2016	Visiting researcher for Master thesis, "Development of a Fluid-Structure-Interaction model for the Numerical Optimization of a Submerged Pressure Differential Wave Energy Converter", *Lawrence Berkeley National Lab & CalWave Power Technology at UC Berkeley, Berkeley, CA, USA*
03/02/2014 – 01/08/2014	Visiting researcher for research project, "Numerical Studies on the Structural Behaviour of an OWSC" *Queen's University Belfast, Belfast, Northern Ireland, UK*

Memberships and functions

Since 2024	Member of Scientific committee of the "International Conference on Renewable Energies Offshore"

Since 2023	Member of Technical Program Committee of the "International Ocean and Polar Engineering Conference"
20218 – 2023	Member of the International Network on Offshore Renewable Energy (INORE)

Invited presentation

2025	Advanced hydrodynamic experimental modelling of offshore wind systems across scales, *B-Waves project meeting, SINTEF, Norway*
2025	Sustainable ocean engineering for innovative offshore structures, *Technology Centre for Offshore and Marine, Singapore (TCOMS)*
2021	Wave-structure interaction modelling for renewable energy Applications, *3rd UCL OpenFOAM Workshop*
2021	Modelling wave-structure interaction for marine renewable energy Applications, *UC Berkeley E-201 Ocean Engineering Seminar*
2020	CFD modelling for wave energy applications, *Maynooth University Wave Energy Workshop 2020*

Received individual funding

01/12/2016 - 03/11/2020	PhD Scholarship, Science Foundation Ireland, Grant No. 13/IA/1886, 18k€ per annum.

Acquired third party funding

PI	*Lifetime summary: 1.771.479 €*
COIN (HEU)	645.570 €
MUSCHEL (BMEL)	525.909 €
INF4INiTY (HEU)	600.000 €
Co-PI	*Lifetime summary:1.487.465 €*
COIN (Europaprogramm, MWK)	43.026 €
Reallabor 70 GW Offshore Wind (MWK)	270.000 €
INF4INiTY (Europaprogramm MWK)	41.090 €
NumSiSSi (BAW)	609.000 €
Anemoi (Interreg North Sea)	477.848 €
SAMSON (Europaprogramm MWK)	46.501 €

Teaching activities

since 2025	"Sustainable Ocean Engineering" (6 ECTS), *Technische Universität Braunschweig*, Responsible lecturer (100%) Participants/year: ~15

Supervision and mentoring

Research group leader	
2022 – present	Sustainable Ocean Engineering, *TU Braunschweig, Germany* Associated ongoing research project: Anemoi, COIN, INF4INiTY, NumSissi/NumSiLaSu, MUSCHEL, Reallabor 70GW Offshore Wind
Post-doctoral Fellows (Co-Supervision)	*Lifetime summary: in progress 2*
2024 - present	Dr. Gael Verao Fernández, "Integrated Designs for Future Floating Offshore Wind Farm Technology (INF4INiTY)"
2023 - present	Dr.-Ing. Leon-Carlos Dempwolff, "Numerical Simulation of Long-Period Waves in Embankment Areas (NumSiLaSu)"
PhD Co-Supervision	*Lifetime summary: Past 1, in progress 9*
01/11/2025 – present	Anneke Neber, *TU Braunschweig, Braunschweig, Germany*
01/08/2025 – present	Aron Vogelsang, *TU Braunschweig, Braunschweig, Germany*

01/11/2024 – present	Carl Luis König, *TU Braunschweig, Braunschweig, Germany* "Analysis of energy- and commodity-related co-use scenarios within the offshore wind sector"
01/06/2024 – present	Henri Busch, *TU Braunschweig, Braunschweig, Germany* "Development, analysis and effects of nature-inclusive design elements for and on floating offshore structures"
01/04/2023 – present	Niklas Czerner, *TU Braunschweig, Braunschweig, Germany* "Experimental and numerical investigation of the fate and transport of chemical emissions from offshore wind farms"
01/07/2022 – present	Henrik Neufeldt, *TU Braunschweig, Braunschweig, Germany* "Hydrodynamics of Seaweed in Marine Environments and Aquaculture Systems"
26/11/2020 – present	Vinay Vanjakula, *TU Braunschweig, Braunschweig, Germany* "Numerical and experimental investigation of anchor solutions for offshore floating wind turbines"
19/11/2020 – present	Ranjith Shanmugasundaram, *TU Braunschweig, Braunschweig, Germany* "Development and validation of a simulation toolbox for seabed liquefaction around marine structures"
07/09/2020 – present	Jan Hitzegrad, *TU Braunschweig, Braunschweig, Germany* „Interactions of Coastal Ecosystem Surfaces with Oceanic Waves: Exploring Bed Roughness Effects of Oyster Reefs and Mussel Beds in the Wadden Sea"
07/09/2020 – 30/11/2023	Leon-Carlos Dempwolff, *TU Braunschweig, Braunschweig, Germany* „Coupled numerical modelling of long-period ship-induced waves to predict hydrodynamic loads on estuarine waterway infrastructure"

Master thesis — *Lifetime summary: Past 12, in progress 0, as first examiner: 3*

03/12/2024 – 25/05/2025	Paul Calamita, *TU Braunschweig, Braunschweig, Germany* "Numerical study on the environmental impact of offshore hydrogen production using Delft3D", *as first examiner*
27/11/2024 – 17/04/2025	Leonie Fauteck, *TU Braunschweig, Braunschweig, Germany* "Numerical performance assessment of inclined thin plate breakwaters", *as first examiner*
15/02/2024 – 06/06/2024	Henri Busch, *TU Braunschweig, Braunschweig, Germany* "Design and manufacture artificial reef surrogate materials for the application in floating offshore wind farms"
01/11/2023 – 20/03/2024	Carl-Luis König, *TU Braunschweig, Braunschweig, Germany* „Site assessment for tidal energy deployment in the German Bight", *as first examiner*
21/03/2023 – 21/11/2023	Aileen Brendel, *TU Braunschweig, Braunschweig, Germany* „Hydronumerical simulation of intertidal shellfish reefs"
05/07/2023 – 22/12/2023	Leon Vinkelau, *TU Braunschweig, Braunschweig, Germany* „Numerical investigation of wake development for vertical cylinders with artificial marine biofouling in waves"
02/01/2023 – 22/05/2023	Niklas Czerner, *TU Braunschweig, Braunschweig, Germany* „Development of an experimental test procedure for the analysis of the fate and transport of macroscopic emissions from offshore wind farms"
09/03/2023 – 01/08/2023	Dharini Balachandran, *TU Braunschweig, Braunschweig, Germany* „Modelling and numerical simulation of rigid floating bodies under wave loading"
25/07/2022 – 14/11/2022	Finn Alsguth, *TU Braunschweig, Braunschweig, Germany* „Experimental investigation of the three-dimensional wave transformation over oyster reef and mussel bed surrogates"
24/03/2022 – 14/07/2022	Alexander Korte, *TU Braunschweig, Braunschweig, Germany* „Review and assessment of the German tidal energy resources"
07/03/2019 – 30/08/2019	Leonardo Pio Pistillo, *Politecnico di Torino, Turin, Italy* "Development of a CFD-based numerical wave tank model for the Inertial Sea Wave Energy Converter (ISWEC)"

09/04/2018 – 14/09/2018	Jost Kemper, *University of Applied Sciences Kiel, Kiel, Germany* "Development of a Nested Hydrodynamic Model for the Numerical Analysis of Ocean Wave Energy Systems"
Student Research projects	*Lifetime summary: Past 7, in progress 1, as first examiner: 5*
23/04/2025 – present	Luke Wüstefeld, *TU Braunschweig, Braunschweig, Germany* "Development of a numerical hydrodynamic model of the German Bight using REEF3D::NHFLOW for tidal energy applications" *as first examiner*
06/05/2024 – 09/09/2024	Paul Calamita, *TU Braunschweig, Braunschweig, Germany* "Pathways towards standardisation and commercialisation of nature inclusive designs for floating offshore wind farms", *as first examiner*
16/06/2023 – 15/12/2023	Lena Thießen, *TU Braunschweig, Braunschweig, Germany* „Measurement and Analysis of Pore Water Pressure from Large Scale Experiments of a Floating Offshore Wind Turbine", *as first examiner*
18/07/2022 – 21/11/2022	Niklas Czerner, *TU Braunschweig, Braunschweig, Germany* „Development of a numerical model for the analysis of the vortex generation around heave plates for wave energy converters", *as first examiner*
06/12/2021 – 11/04/2022	Maximilian Baseler, *TU Braunschweig, Braunschweig, Germany* „Development, validation, and application of a numerical model for the analysis of support structures for floating photovoltaic systems"
24/08/2021 – 22/02/2022	Christof Westphal, *TU Braunschweig, Braunschweig, Germany* "Numerical simulation of a Tension-Leg Platform for Offshore Wind Turbines"
27/05/2021 – 25/11/2021	Max Saelzer, *TU Braunschweig, Braunschweig, Germany* "Numerical simulation of the wave kinematics near varying bottom topographies"
13/09/2019 – 10/05/2019	Carl Hany, *Maynooth University, Maynooth, Ireland* "Modelling of an oscillating water column in a 2D numerical wave tank using OpenFOAM"
Bachelor thesis	*Lifetime summary: Past 3, as first examiner: 2*
21/11/2024 – 27/03/2025	Leo Koyama, *TU Braunschweig, Braunschweig, Germany* "Experimental investigation of the hydrodynamic response of generic single and multi-floats for floating photovoltaic applications", *as first examiner*
16/10/2024 – 26/02/2025	Tjark Behrens, *TU Braunschweig, Braunschweig, Germany* "Experimental study of the hydrodynamic interaction of aggregated soft and long flapping marine growth with waves and currents", *as first examiner*
17/10/2022 – 30/01/2023	Lennart Spennemann, *TU Braunschweig, Braunschweig, Germany* "Hydro-elastic Membranes under Wave Excitation: A Review of Experimental and Mathematical Modelling Approaches"
	PhD examination committees
	Lifetime summary: 2
2025	Oronzo Dell'Edera, "*High-fidelity modeling for moored floating bodies*", Politecnico di Torino
2024	Salvatore Capasso, "*Towards comprehensive high-fidelity modeling of offshore renewable energy systems by SPH*", University of Salerno
	Reviewing experience
	Scientific reviews for different journals and conferences in the field of ocean engineering (e.g. Applied Energy, Coastal Engineering, Energy conversion and management, Energy, Journal of Waterway, port, coastal, and ocean engineering, Journal of Fluids and Structures, Physics of fluids, OpenFOAM Journal, Ocean Engineering)

Scientific publications:
(Scopus statistics: 1137 citations, h-index 15)
(GoogleScholar statistics: 1718 citations, h-index 22)

Peer-reviewed journal Papers (all)

[J47] **C. Windt**, M. Kudella, S. Schimmels, M. Smyczyński, K. Kazimierowicz-Frankowska, V.S.O. Kirca, B.M. Sumer, N. Goseberg, *Experimental modelling and investigation of seabed liquefaction at large scale. Part I: Wave-soil interaction*, Journal of Waterway, Port, Coastal, and Ocean Engineering (151), 04025024, 2025

[J46] **C. Windt**, M. Kudella, S. Schimmels, M. Smyczyński, K. Kazimierowicz-Frankowska, V.S.O. Kirca, B.M. Sumer, F. Adam, V. Vanjakula, N. Goseberg, *Experimental modelling and investigation of seabed liquefaction at large scale. Part II: Wave-structure-soil interaction*, Journal of Waterway, Port, Coastal, and Ocean Engineering (151), 04025025, 2025

[J45] I. Prüter, F. Spröer, O. Lojek, **C. Windt**, D. Schürenkamp, I. Nistor, N. Goseberg, *Vegetation stem dynamics under wave loading: Insights from a coupled fluid–structure model*, Applied Ocean Research (159), 104597, 2025

[J44] J. Meyer, **C. Windt**, C. Schweiger, C. Krautwald, M. Welzel, A. Hildebrandt, T. Schlurmann, N. Goseberg, *An experimental benchmark study on shape effects of structures under forced vertical oscillation: Flow fields, wave radiation, and hydrodynamic coefficients*, Applied Ocean Research (159), 104585, 2024

[J43] E. Hengstmann, P. Zapata Corella, K. Alter, M. J. Belzunce-Segarra, A. M. Booth, J. Castro-Jiménez, N. Czerner, K. De Cauwer, G. Deviller, A. Gomiero, N. Goseberg, S. Hasenbein, T. Kirchgeorg, C. Mason, W. Pape, K. Parmentier, A. Plaß, D. Pröfrock, A. Sarhadi, D. Vanavermaete, J. van der Molen, P. A. Vinagre, D. Wood, I. Weinberg, **C. Windt**, A. Zonderman, J. Kenyon, B. De Witte, *Chemical emissions from offshore wind farms: From identification to challenges in impact assessment and regulation*, Marine Pollution Bulletin (215), 117915, 2025

[J42] N. Czerner, **C. Windt**, N. Goseberg, *Transport mechanisms of particulate emissions from artificial marine structure – A review*, Marine Pollution Bulletin (214), 117728, 2025

[J41] J. Hitzegrad, L. Rentsch, T. K. Hoffmann, M. Paul, **C. Windt**, T. Schlurmann, N. Goseberg, *Wave-induced hydrodynamics of biogenic structures in the central Wadden Sea: Implications of the transformation from mussel beds to oyster reefs for wave attenuation*, Coastal Engineering (200),104763, 2025

[J40] F. Spröer, L.-C. Dempwolff, **C. Windt**, C. Krautwald, D. Schürenkamp, N. Goseberg, *Numerical modelling of pump-driven tsunami generation and fluid-structure-interaction in idealized urbanized coastal areas during run-up*, Coastal Engineering (196), 104654, 2025

[J39] H. Neufeldt, **C. Windt**, B.H. Buck, K. Heasmann, A. Hildebrandt, N. Goseberg, *Physical and numerical modeling of seaweed in oceanic waters*, Aquacultural Engineering, 102528, 2025

[J38] I. Prüter, F. Spröer, K. Keimer, O. Lojek, **C. Windt**, D. Schürenkamp, I. Nistor, N. Goseberg, *A comprehensive numerical study on the current-induced fluid structure interaction of flexible submerged vegetation*, Journal of Fluids and Structures (133), 104232, 2024

[J37] V. Vanjakula, **C. Windt**, F. Adam, N. Goseberg, *Numerical investigation on the motion dynamics of submerged gravity anchors exposed to wave action*, Journal of Waterway, Port, Coastal, and Ocean Engineering (151), 04024023, 2025

[J36] Y. Wei, D. Khojasteh, **C. Windt**, L. Huang, *An interdisciplinary review of floating solar power plants*, Renewable and Sustainable Energy Reviews (209), 115094, 2025

[J35] L.C. Dempwolff, **C. Windt**, G. Melling, I. Holzwarth, H. Bihs, N. Goseberg, *Resonance effects of long-period ship-induced waves near shallow coasts*, Physics of Fluids (36), 2024

[J34] J. Meyer, **C. Windt**, A. Hildebrandt, T. Schlurmann, *Mechanically coupled wave farms: On the accuracy of a mid-fidelity hydrodynamic model under consideration of varying calibration approaches*, Ocean Engineering (305), 117874, 2024

[J33] **C. Windt**, N. Goseberg, S. Schimmels, M. Kudella, R. Shanmugasundaram, H. Rusche, V. Vanjakula, F. Adam, F. Majewski, K. Kazimierowicz-Frankowska, M- Pietrzkiewicz, V.S.O. Kirca, B.M. Sumer, *Liquefaction around marine structures: Development of a numerical modelling framework in OpenFOAM®*, International Journal of Offshore and Polar Engineering, (02), pp. 182-190, 2024

[J32] J. Hitzegrad, L. Brohmann, F. Herding, K. Pfennings, S. Jonischkies, E. Scharnbeck, J. Mainka, I. Mai, **C. Windt**, H. Kloft, A. Wehrmann, D. Lowke, N. Goseberg, *Surfaces of coastal biogenic structures: Exploiting advanced digital design and fabrication strategies for the manufacturing of oyster reef and mussel bed surrogates*, Frontiers in Marine Science (11), 1395025, 2024

[J31] J. Hitzegrad, S. Köster, **C. Windt**, N. Goseberg, *Understanding the Role of Sharp Edges in the Propagation of Surface Gravity Waves*, JGR Oceans (129), 2024

[J30] L.C. Dempwolff, **C. Windt**, H. Bihs, G. Melling, I. Holzwarth, N. Goseberg, *Hydrodynamic coupling of multi-fidelity solvers in REEF3D with application to ship-induced wave modelling*, Coastal Engineering, (188) 104452, 2024

[J29] A. Korte, **C. Windt**, N. Goseberg, *Review and assessment of the German tidal energy resource*, Journal of Ocean Engineering and Marine Energy, pp.1-23, 2023

[J28] J. Meyer, **C. Windt**, P. Sinn, A. Hildebrandt, *On the mooring methodology of heaving point absorber arrays*, Ocean Engineering, (281), 114659, 2023

[J27] L.C. Dempwolff, **C. Windt**, G. Melling, H. Bihs, I. Holzwarth, N. Goseberg, *Ship Wave–Induced Hydraulic Loading on Estuarine Groins: A Conceptual Numerical Study*, Journal of Waterway, Port, Coastal, and Ocean Engineering 149 (3), 04023002, 2023

[J26] L.C. Dempwolff, **C. Windt**, N Goseberg, T Martin, H Bihs, G Melling, *Verification of a free-surface pressure term extension to represent ships in a nonhydrostatic shallow-water-equations solver*, Journal of Offshore Mechanics and Arctic Engineering 145 (2), 021202, 2023

[J25] L.C. Dempwolff, **C. Windt**, G. Melling, T. Martin, H. Bihs, I. Holzwarth, N. Goseberg, *The influence of the hull representation for modelling of primary ship waves with a shallow-water equation solver*, Ocean Engineering (266), 113163, 2022

[J24] L. Huang, Y. Li, D. Benites-Munoz, **C. Windt**, A. Feichtner, S. Tavakoli, J. Davidson, R. Paredes, T. Quintuna, E. Ransely, M. Colombo, M. Li, P. Cardiff, G. Tabor, *A review on the modelling of wave-structure interactions based on OpenFOAM*, OpenFOAM Journal, (2), 166-142, 2022

[J23] R. Shanmugasundaram, **C. Windt**, H. Rusche, N. Goseberg, *Towards the numerical modelling of residual seabed liquefaction using OpenFOAM*, OpenFOAM Journal (2), pp. 94-115, 2022

[J22] L.C. Dempwolff, G. Melling, **C. Windt**, O. Lojek, T. Martin, I. Holzwarth, H. Bihs, N. Goseberg, *Loads and effects of ship-generated, drawdown waves in confined waterways - A review of current knowledge and methods*, in Press in the Journal of Coastal and Hydraulic Structures, 2022

[J21] C. Cummins, G. Scarlett, **C. Windt**, Numerical analysis of wave-structure interaction of regular waves with surface-piercing inclined plates, Journal of Ocean Engineering and Marine Energy, (8), pages 99-115, 2022

[J20] N. Faedo, Y. Pena, **C. Windt**, J.V. Ringwood, *A simple and effective excitation force estimator for wave energy systems*, Transactions on Sustainable Energy (early access), 2021

[J19] **C. Windt**, N. Faedo, M. Penalba, F. Dias, J. V. Ringwood, *Reactive control of wave energy devices – the modelling paradox*, Applied Ocean Research, (109) 102574, 2021

[J18] **C. Windt**, J. Davidson, J. V. Ringwood, *Numerical analysis of the hydrodynamic scaling effects for the Wavestar wave energy converter*, Journal of Fluids and Structures, (105), 103328, 2021

[J17] D. Garcia-Violini, Y. Peña-Sanchez, N. Faedo, **C. Windt**, J. V. Ringwood, *Experimental implementation and validation of a broadband LTI energy maximising control strategy for the Wavestar device*, IEEE Transactions on Control Systems Technology, 2021

[J16] E. Ransley, S. Brown, M. Hann, D. Greaves, **C. Windt**, J. Ringwood, J. Davidson, P. Schmitt, S. Yan, J. X. Wang,J. H. Wang, Q. Ma, Z. Xie, G. Giorgi, J. Hughes, A. Williams, I. Masters, Z. Lin, H. Chen, L. Qian, Z. Ma, Q. Chen, H. Ding, J. van Rij, Y. Yu, Z. Li, B. Bouscasse, G. Ducrozet, H. Bingham, *Focused wave interactions with floating structures: A blind comparative study*, Proceedings of the Institution of Civil Engineers - Engineering and Computational Mechanics, (174), pages 46-61, 2021

[J15] **C. Windt**, J. Davidson, E. J. Ransley, D. Greaves, J. V. Ringwood, *Assessing the validity of regular wave theory in a short physical wave flume using particle image velocimetry*, Experimental Thermal and Fluid Science, (121), 110276, 2021

[J14] P. Schmitt, **C. Windt**, J. Davidson, J. V. Ringwood, *Beyond VoF – numerical wave tanks in OpenFOAM*, Journal of Ocean Engineering and Marine Energy, (6), pages 277-292, 2020

[J13] **C. Windt**, N. Faedo, Y. Peña-Sanchez, D. Garcia-Violini, J. Davidson, F. Ferri, J. V. Ringwood, *Validation of a CFD-based numerical wave tank model of the 1/20th scale Wavestar wave energy converter*, Fluids 5 (3), 112, 2020

[J12] **C. Windt**, J. Davidson, P. Schmitt, J. V. Ringwood, *Wave–structure interaction of wave energy converters: A sensitivity analysis*, Proceedings of the Institution of Civil Engineers - Engineering and Computational Mechanics, (173), pages 144-158, 2020

[J11] E. Ransley, S. Yan, S. Brown, M. Hann, D. Graham, **C. Windt**, P. Schmitt, J. Davidson, J. Ringwood, P. H. Musiedlak, J. Wang, J. Wang, Q. Ma, Z. Xie, N. Zhang, X. Zheng, G. Giorgi, H. Chen, Z. Lin, L. Qian, Z. Ma, W. Bai, Q. Chen, J. Zang, H. Ding, L. Cheng, J. Zheng, H. Gu, X. Gong, Z. Liu, Y. Zhuang, D. Wan, H. Bingham, D. Greaves, *A blind comparative study of focused wave interactions with floating structures (CCP-WSI Blind Test Series 3)*, International Journal of Offshore and Polar Engineering (30), pages 1-10, 2020.

[J10] **C. Windt**, J. Davidson, P. Schmitt, J. V. Ringwood, *CCP-WSI blind test series 3: CFD-based numerical wave tank experiments employing an impulse source wave maker*, International Journal of Offshore and Polar Engineering (30), pages 28-35, 2020

[J9] **C. Windt**, J. Davidson, E. J. Ransley, D. Greaves, M. Jakobsen, M. Kramer, J. V. Ringwood, *Validation of a CFD-based numerical wave tank model for the power production assessment of the Wavestar ocean wave energy converter*, Renewable Energy (146), pages 2499-2516, 2020.

[J8] Y. Peña-Sanchez, **C. Windt**, J. Davidson, J. V. Ringwood, *A Critical Comparison of Excitation Force Estimators for Wave Energy Devices*, IEEE Transactions on Control Systems Technology (early access), 2019.

[J7] **C. Windt**, J. Davidson, D. Chandar, J. V. Ringwood, *Evaluation of the overset grid method for control studies of wave energy converters in OpenFOAM numerical wave tanks*, Journal of Ocean Engineering and Marine Energy, pages 1-16, 2019.

[J6] P. Schmitt, **C. Windt**, J. Davidson, J. V. Ringwood, *The efficient application of an impulse source wavemaker to CFD simulations*, Journal of Marine Science and Engineering (3), 71, 2019

[J5] **C. Windt**, J. Davidson, P. Schmitt, J. V. Ringwood, *On the assessment of numerical wave makers in CFD simulations*, Journal of Marine Science and Engineering (2), 47, 2019

[J4] J. Davidson, **C. Windt**, G. Giorgi, R. Genest, J. V. Ringwood, *Evaluation of energy maximising control systems for wave energy converters using OpenFOAM*, in OpenFOAM – Selected papers from the 11th Workshop, Springer, 2018

[J3] **C. Windt**, J. Davidson, J. V. Ringwood, *High-fidelity numerical modelling of ocean wave energy systems: A review of computational fluid dynamics-based numerical wave tanks*, Renewable and Sustainable Energy Reviews (93), pages 610-630, 2018

[J2] M. Penalba, J. Davidson, **C. Windt**, J. V. Ringwood, *A high-fidelity wave-to-wire simulation platform for wave energy converters: Coupled numerical wave tank and power take-off models*, Applied Energy (226), pages 655-669, 2018.

[J1] P. Schmitt, **C. Windt**, J. Nicolson, B. Elsässer, *Development and validation of a procedure for numerical vibration analysis of an oscillating wave surge converter*, European Journal of Mechanics-B/Fluids (58), pages 9-19, 2016