15th EWTEC 2023 — European Wave and Tidal Energy Conference Series | BILBAO 3rd -7th SEPTEMBER 2023

Thursday September 7

08:00-09:00 — **Registration** *(Main Hall)* — **08:00-09:00**

09:00-10:30 — Oral presentations

Room /Track	Chairman	Paper ID	Title	Presenter	
Laboa/ Grid integration, power take-off and control	Joao Henriques	472	A time domain approach for the optimal control of wave energy converter arrays	Mohamed Shabara	09:00-09:15
		493	Optimisation of Air turbines for OWC Wave Energy Converters: Sensitivity of Realistic Wave Climates	Ander Zarketa-Astigarraga	09:15-09:30
		500	Integrated hydrodynamic-electrical hardware model for wave energy conversion with M4 ocean demonstrator	Judith Apsley	09:30-09:45
		409	On data-based control-oriented modelling applications in wave energy systems	Edoardo Pasta	09:45-10:00
		592	The Performance evaluation of 30kW class OWC wave power plant integrated with breakwater	Kilwom Kim	10:00-10:15
		161	Investigation on the extreme peak mooring force distribution of a point absorber wave energy converter with and without a survivability control system	Zahra Shahroozi	10:15-10:30
Arriaga/ Wave resource characterization	Joannes Berque	140	Analysis of the North Atlantic offshore energy flux from different reanalysis and hindcasts	Matias Alday	09:00-09:15
		175	Wave Spectral Analysis for designing Wave Energy Converters	Jesus Portilla-Yandun	09:15-09:30
		275	Long term wave load trends against offshore monopile structures: A case study in the Bay of Biscay	Nahia Martinez-Iturricastillo	09:30-09:45
		279	Numerical modelling of wave and tidal current interactions and their impact on wave parameters	Tian Tan	09:45-10:00
		205	On the errors in annual energy yield estimation due to monodirectional wave spectra assumption	Giuseppe Giorgi	10:00-10:15
		305	Validation of ERA5 Wave Energy Flux through Sailor diagram in Spain (2005-2014)	Alain Ulazia	10:15-10:30
Oteiza/ Economical, social, legal and political aspects of ocean energy	Pablo Ruiz-Minguela	154	Do recent renewable energy policy changes in Ireland satisfy the requirements of a nascent wave energy technology development sector?	Carrie Anne Barry	09:00-09:15
		157	Integration of wave energy into Energy Systems: an insight to the system dynamics and ways forward	George Lavidas	09:15-09:30
		306	Can Risk-Based Approaches benefit future Marine Renewable Energy deployment, planning and consenting processes?	Emma Verling	09:30-09:45
		351	Towards increased social acceptability of marine renewable energy	Niall P. Dunphy	09:45-10:00
		362	Environmental Effects of MRE: Advancing the Industry through Broad Outreach and Engagement	Deborah Rose	10:00-10:15
					10:15-10:30

10:30-11:00 — **Refreshments, networking & posters exhibition** *(Terrace and Chillida room)* — **10:30-11:00**

11:00-12:30 — Oral presentations

Room /Track	Chairman	Paper ID	Title	Presenter	
Baroja/ Wave device development and testing	Urko Izquierdo	453	The Impact of Uncertainty on the Control of a Multi-Axis Wave Energy Converter	Carrie Hall	11:00-11:15
		531	Spectral control co-design of wave energy converter array layout	Yerai Peña-Sanchez	11:15-11:30
		548	A new seawater low-head turbine for the OBREC	Sara Russo	11:30-11:45
		549	Experimental investigation on the hydrodynamic performance of a pile-supported OWC-type breakwater	Yusuf Almalki	11:45-12:00
		661	Weight Reduction Methodologies for Wave Energy Devices: A Structural Analysis Approach	Michael O'Shea	12:00-12:15
		170	Wave Excitation Tests on a Fixed Sphere: Comparison of Physical Wave Basin Setups	Jacob Andersen	12:15-12:30
Laboa/ Grid integration, power take-off and control	Eider Robles	215	Wave Farms Integration in a 100% renewable isolated small power system -frequency stability and grid compliance analysis.	Marcos Blanco	11:00-11:15
		309	Wave-to-Wire Control of an Oscillating Water Column Wave Energy System Equipped with a Wells Turbine	Marco Rosati	11:15-11:30
		510	Maximizing Wave Energy Converter Power Extraction by Utilizing a Variable Negative Stiffness Magnetic Spring	Carlos Michelen	11:30-11:45
		561	Development of control strategies for novel systems of a full scale OWC for the WEDUSEA project	James Kelly	11:45-12:00
		346	Enhancing energy system resilience using tidal stream energy	Danny Coles	12:00-12:15
		551	Analysis of Ocean Energy Integration in Ibero-American Electric Grids	Marcos Lafoz	12:15-12:30
Arriaga/ Wave resource characterization	Jesús M. Blanco	529	Impact of Resource Uncertainties on the Design of Wave Energy Converters	Markel Peñalba	11:00-11:15
		539	Discussions on Wave energy period in higher wave energy potential marine waters of Taiwan	Shiaw-Yih Tzang	11:15-11:30
		159	Internal waves: A potentially untapped marine energy resource	Kastubha Raghukumar	11:30-11:45
		197	Feasibility of wave energy harvesting in the Ligurian Sea	Manuel Alejandro Corrales-González	11:45-12:00
		378	Identification of optimal sites for the deployment of wave energy converters: the importance of a technology-centred approach	Riccardo Novo	12:00-12:15
					12:15-12:30
Oteiza/ Economical, social, legal and political aspects of ocean energy	Yago Torre-Enciso	399	Techno-economic optimization of an offshore hybrid power system: Argentine Basin case study	Sarah Palmer	11:00-11:15
		452	Ensuring Resilience in Ocean Energy Power Plants: A Survey of Cybersecurity Measures	Thalita Nazare	11:15-11:30
		340	On the complementarity of wave, tidal, wind and solar resources in Ireland	Hafiz Ashan Said	11:30-11:45
		335	A Comparison of the European Regulatory Framework for the deployment of Wave Energy Converters	Claudio Moscoloni	11:45-12:00
		507	Ocean Energy: Markets – Currency – Impact. Dimension of & Choices in the Technology Development Space	Jochem Weber	12:00-12:15
		397	Informing development of a socioeconomic data collection toolkit for marine energy: a literature review	Deborah Rose	12:15-12:30

12:30-14:00 — **Lunch & posters exhibition** *(Terrace and Chillida room)* — **12:30-14:00**

14:00-15:30 — Oral presentations

Room /Track	Chairman	Paper ID	Title	Presenter	
Baroja/ Wave device development and testing	Tony Lewis	350	Performance enhancement of pitching WECs via oscillating water columns technology	Marco Fontana	14:00-14:15
		357	Numerical investigation of the energy performance of a wave energy converter comprising a multi-body power take-off	Félix Elefant	14:15-14:30
		395	Hybrid wind-wave systems: The case of the VolturUS-S semi-submersible platform	Maximilian Hengstmann	14:30-14:45
		439	Analysis of the viability of a radial Double Decker Turbine for application in Oscillating Water Column devices	Aitor Vega-Valladares	14:45-15:00
		445	An Early Design Phase Method for Characterizing and Comparing Wave Energy Converter Archetypes	Aeron Roach	15:00-15:15
					15:15-15:30
Arriaga/ Wave resource characterization	Jose L. Villate	564	Upsampling wave temporal resolution: Investigating wave parameters and the influence on WEC power performance	Hannah Mankle	14:00-14:15
		619	On spatial interpolation of ocean energy source variables: A comparative analysis	Leonardo Gambarelli	14:15-14:30
		475	The application of temporal gating in the measurement of response amplitude operators	Nataliia Sergiienko	14:30-14:45
		310	Analysis of the impact of floater interactions on the power extraction of a dense WEC array with adaptable nonlinear PTO	Alva Bechlenberg	14:45-15:00
		483	New design options for the improvement of the Mutriku power plant	Urko Izquierdo	15:00-15:15
					15:15-15:30
Oteiza/ Economical, social, legal and political aspects of ocean energy	Jochem Weber	223	Using human-centered design to develop a national research landscape for marine energy in the United States	Samantha Quinn	14:00-14:15
		385	Choosing Wave Energy Devices for Community Led Marine Energy Development	Molly Grear	14:15-14:30
		388	A Socioeconomic, Environmental, and Regulatory Assessment for Current Energy Converter Technologies	Jonathan Colby	14:30-14:45
		413	Floating wind and wave energy technologies: applications, synergies and role in decarbonization in Portugal	Craig White	14:45-15:00
		436	Wave energy communication and social opposition: can we improve perception of ocean energy development projects?	Maria C. Uyarra	15:00-15:15
					15:15-15:30

15:40-16:15 — **Closing ceremony** — **Mitxelena Auditorium**

Iñigo Ansola	Chair EVE (Basque Agency for Energy)	15:40-15:45
Irene Penesis	ICOE 2024 Melbourne (Australia)	15:45-15:50
AbuBakr Bahaj	PRIMaRE 2024 Southampton (UK)	15:50-15:55
Bruce Cameron	PAMEC 2024 Barranquilla (Colombia)	15:55-16:00
C H Jo	AWTEC 2024 Busan (Korea)	16:00-16:05
Luis Gato	EWTEC 2025 Madeira (Portugal)	16:05-16:10
Cameron Johnstone	EWTEC Executive Board	16:10-16:15

16:30-20:30 — **Social programme** — **Technical visits:** **Option 1: MUTRIKU** **Option 2: BIMEP** — **16:30-20:30**

21:00-22:30 — **Technical programme** — **(Executive Board Meeting and Dinner)** — **21:00-22:30**