Tuesday 9th September			
WHM	Wave hydrodynamic modelling 3		**ROOM 1**
	Chair: Harry Bingham		
Time	**ID**	**Title**	**Authors**
9.00	**781**	Prediction of Hydrodynamic Coefficients of a Point Absorber Wave Energy Converter Using Artificial Neural	Networks and Its Applications Sanghwan Heo; Sanghun Lee; Hyunsik Son; WeonCheol Koo
	786	Resolving the incompatibility of hydrodynamics calculations between popular BEM solvers Salman Husain; Iñaki	Zabala Calvo; David Ogden
	790	Data-driven modeling of nonlinear events for an oscillating surge WEC using Sparse Identification of Nonlinear Dynamics (SINDy)	Brittany Lydon; Steve Brunton; Ama Hartman; Greg Talpey; Corey Crisp; Gemma Calandra; Charles Candon; Rebecca Fao; Brian Polagye
	794	Nonlinear Hydrodynamic Forces and their Implications for Power Capture of Heaving Wave Energy Converters	Bryan Tan; Jana Orszaghova; Hugh Wolgamot; Adi Kurniawan; Jørgen Hals Todalshaug
	TBC		
10.30	**Coffee Break**		
WHM	Wave hydrodynamic modelling 4		**ROOM 1**
	Chair: Giovanni Malara		
11.00	**780**	A Study on Optimal Layouts of Multiple Point-Absorber Wave Energy Converters Using Metaheuristic Algorithms	OnBin Lee; Sanghwan Heo; WeonCheol Koo
	921	Piecewise data-driven modelling of the RM3 wave energy converter for multi-condition prediction	Thalita Nazare
	922	Evaluating the applicability of linear hydrodynamics across float geometries for heaving point absorbers	Sarah Palmer; Sadie Kass; Curtis Rusch; Brittany Lydon; Brian Polagye
	955	Stabilisation of Floating Platforms By Pumping Between Columns	David Apsley; Peter Stansby
	1000	Numerical analysis on the motion responses of two-body point absorber	Byung-Soo Kim; Yoon-Jin Ha; Jeong-Seok Kim; Jiyong Park
12.30	**Lunch Break**		

WDD	Wave device development and testing 2		ROOM 1
		Chair: Deborah Greaves	
Time	**ID**	**Title**	**Authors**
14.00	**715**	Lobe-Tendon Anaconda: An evolution of the Anaconda concept	Anthony McDonald; Mark Prentice
	776	Detailed Uncertainty Analysis of a Point Absorber Wave Energy Converter Laboratory Test in Irregular Waves	Courtney Beringer; Bret Bosma; Bryson Robertson
	821	Experimental characterization of the use of the wave energy convertor DIKWE as a breakwater reinforcement on the existing structure performances	Louise Desvignes; Grégoire Corre; Gaspard Fourestier; Paul Tournant; Gaële Perret
	957	Experimental testing of a heterogeneous wave energy converter array	Pal Schmitt
	TBC		
15.30	**Coffee Break**		
WDD	Wave device development and testing 3		**ROOM 1**
		Chair: Tony Lewis	
16.00	**849**	System Modeling and Power Optimization of a Point Absorber Wave Energy Converter	Weihan Lin; Jianuo Huang; Binh Truong; Lei Zuo
	850	A multi-dimensional review on performance enhancement opportunities of next generation wave energy converters	Hirun Seneviratne; Chaminda Karunasena; Hadi Amlashi
	855	Hydrodynamics of a dual-chamber OWC wave energy converter coupled with a parabolic coast/breakwater	Zhigao Wang; Xuanlie Zhao; Yu Zhou; Lixiao Jing
	856	Parametric Analysis and Methodology for Optimal Wave Energy Converter Array Design	Yifei Han; Zechuan Lin; Kemeng Chen; Xuanrui Huang; Xi Xiao; Xuanyi Zhu
17.30	**TBC**		

SMF	Station-keeping, moorings and foundations 1		ROOM 2
	Chair: Johannes Palm		
Time	**ID**	**Title**	**Authors**
9.00	**703**	Experimental Validation of a Real-Time Hybrid Mooring System for Wave Energy Systems Using a Linear Test Bed	Abilyn McConnell; Bryson Robertson; Bret Bosma
	724	The Use of a Structured Verification and Validation Strategy in the Development of the C-Dart Quick Connection Mooring System	Tim Warren
	754	Numerical analysis of design variations in a longline aquaculture system under wave and current loads	Daniele Aromatario; António Maximiano; Riccardo Chini; Thomas Goulding; Guilherme Vaz
	807	Wave Energy Integration for Offshore Aquaculture: MoorPower Tether Optimization Study	Abdulsalam Yousif Ali Musaad; Elie Al Shami; Alexandre Pichard; Miguel Santos Herran; Jonathan Fievez
	TBC		
10.30	**Coffee Break**		
EIA	Marine spatial planning, environmental impact and appraisal 1		**ROOM 2**
	Chair: Lysel Garavelli		
11.00	**720**	Understanding the exposure of marine life to electromagnetic fields generated by subsea cables	Valentina Caradonna; Arianna Azzellino; Andrew B. Gill; Peter Sigray; Diego Vicinanza; Junio Fabrizio Borsani
	743	Estimating nearshore wave energy converter impact on beach width using satellite data	James Thompson; Nick Cartwright; Amir Etemad-Shahidi; Guilherme Vieira da Silva
	758	Monitoring fish communities in offshore renewable energy: the SafeWAVE case study	Pedro Almeida Vinagre; Inês Machado; Luana Clementino; Miguel Amado; Guillermo Boyra; Ainhize Uriarte; Beatriz Sobradillo; Juan Bald
	810	The Importance of Empirical Particle Motion Measurements for Monitoring Underwater Noise from Wave Energy Converters	Carola Chicco; Francesco Niosi; Giuseppa Buscaino; Davide Issoglio; Elena Papale; Maria Ceraulo; Giuseppe Giorgi
	831	Innovative rapid modelling for tidal range scenarios	Joshua Mitchell; Anthony Chu; Julia Race; David Ingram; Ian Ashton
12.30	**Lunch Break**		

GPC	Air Turbines	ROOM 2
	Chair: Ana Carrelhas	
Time	**ID**	**Title**	**Authors**
14.00	**731**	Numerical Investigation of the Characteristics of Crossflow Air Turbine under Irregular Waves for Wave Energy Conversion	B.H.B.P.D. Baddegamage; Seong Jong Bae; S.D.G.S.P. Gunawardane; Young-Ho Lee; Min Yoon
	745	Effect of End Plates on the Performance of a Counter-rotating Impulse Turbine for Wave Energy Conversion	Shota Hakuishi
	798	Effect of Blade Angle on the Performance of Biradial Turbines for Oscillating Water Column Systems	Seong Jong Bae; Pisindu Baddegamage; Kilwon Kim; Min Yoon
	857	Multiparametric optimization of the Middle Vanes of a counter-rotating axial impulse turbine for Oscillating Water Column devices	Aitor Vega-Valladares; Manuel Garcia-Diaz; Bruno Pereiras; Manabu Takao
	906	Design of an enhanced Wells turbine for a breakwater-integrated OWC device	João M. M. Heleno; Luís M. C. Gato; Ana A. D. Carrelhas
15.30	**Coffee Break**		
WRC	Wave resource characterization 2	**ROOM 2**
	Chair: Rémy Pascal	
16.00	**844**	Wave energy harvesting potential of the BlackSea Basin: a resource feasibility	Sinan Eraslan; İrem Yağmuroğlu; Bárður Joensen
	949	UNCERTAINTIES IN WAVE ENERGY POTENTIAL ESTIMATION: CASE STUDY AT MARELAB	Sara Russo; Pasquale Contestabile; Andrea Bardazzi; Diego Vicinanza; Claudio Lugni
	969	Optimizing Design Load Case Reduction for Fatigue Assessment of Mooring Lines in Marine Renewable Energy Systems	Ander Martinez; Eguzkiñe Martinez; Iñigo Llavori; Markel Peñalba; José Gregorio Iglesias
	988	Best sites for wave energy resources creating opportunities for low-cost e-fuel production	Rasul Satymov; Dmitrii Bogdanov; George Lavidas; Shona Pennock; Sarah Kluge; Christian Breyer; Benjamin Lehner
17.30	**1158**	High-Fidelity Numerical Modeling and Experimental Measurement of Wave Fields in the Azores	Giacomo Dieci; Tiago Gomes; Antonio Maximiano; Guilherme Vaz; Eduardo Azevedo; Francisco Reis

WDD	Wave device development and testing 1	ROOM 3
	Chair: Peter Frigaard	
Time	**ID**	**Title**	**Authors**
9.00	**771**	Hydrodynamic design and build of a direct drive heaving buoy wave energy converter.	Nick Baker; Serkan Turkment; Nese Halibese; Ehsan Farmahini Farahani
	772	Control co-design for cyclorotor wave energy conversion	Ilias Stasinopoulos; Andrei Ermakov; John Ringwood
	1027	The M4 Wave Energy Demonstration Project: Overview, impact and insight	Hugh Wolgamot; Christophe Gaudin; Peter Stansby; Adi Kurniawan; Wiebke Ebeling; Irene Penesis
	1237	Flexible Responsive Systems in Wave Energy	Deborah Greaves; Tom Tosdevin; Alistair Borthwick; Jingyi Yang; Zhong You; Maozhou Meng; Siming Zheng; Martyn Hann; pablo Borja; Shanshan Cheng; Xinyu Wang; Krishnendu Puzhukkil; kai Zhu; Malcolm Cox; Kieran Monk; John Chaplin
	TBC		
10.30	**Coffee Break**		
ESP	Markets, financing, certification and standardization	**ROOM 3**
	Chair: Ana Brito e Melo	
11.00	**739**	Wave energy in Energy Systems, the impact of high-fidelity datasets and a view for the future.	George Lavidas; Lefteris Mezilis
	885	On the role of wave energy in the renewable energy mix complementarity: A comparative study between Italy and Ireland	Lucia Clara Cairella; Hafiz Ahsan Said; Edoardo Pasta
	1054	Standards and Certification of Marine Energy Conversion Systems	Richard Williams; Winston D'Souza; Philip Beauchamp; Arielle Cardinal; Jonathan Colby; William Staby
	1058	PRIMRE: Providing Centralized Access to Marine Energy Data and Information	Cesar Castillo; Kelley Ruehl; Will Peplinski; Megan Anderson; Jon Weers; Jonathan Whiting; Hayley Farr; Andrea Copping; Dominick DeCanio; Lysel Garavelli; Hanna Fields; Sean Morris; Austin
	1246	The Development of China's National Marine Test Sites and Field Testing Technology	Hainan Xia
12.30	**Lunch Break**		

BE	Co-location, hybridization and synergies in the Blue Economy 1		ROOM 3
		Chair: Juan Portillo	
Time	**ID**	**Title**	**Authors**
14.00	**711**	Surge and pitch motion effects on aerodynamic performance of a spar floating offshore wind turbine under wave-wind loading	Naghmeh Akbari zadeh; Peter Ryan; Fergal O'Rourke
	750	Enhancing offshore hybridization via storage: Technical and safety consideration in Blue Economy projects	Elise Nanini-Maury; Aurore Castets; Lionel Nadau; Dominique Corbisier
	827	Life Cycle Assessment of co-located floating offshore wind and wave energy technologies in Portugal	Paula Bastos; Christian Breyer; Sarah Kluge; Shona Pennock; Tugce Demirsoz; Luis Amaral; Franscisco Correia da Fonseca
	872	Advancing Multi-Energy Marine Platforms: Insights from the TwinPower Project on Digital Twins, Renewable Technologies, and Coastal Integration	Xavier PELLERIN; Guillaume LEMAITRE
	1225	Evaluating the Dynamic Response and Power Performance of a Floating Hybrid Wind-Wave Energy System	Vivek Francis; Martyn Hann; Midhun Chandran; Oluwamayowa Afolabi; Keri Collins; Aude Mulard; Deborah Greaves
15.30	**Coffee Break**		
TRC	Tidal resource characterization 2		**ROOM 3**
		Chair: Danny Coles	
16.00	**960**	Novel Approach for a Tidal Energy Resource Assessment within Long Island Sound Using a Spatial Multi Criteria Decision Analysis Process	Christopher Flanary
	967	Characterising crossflow tidal energy converter turbulent eddy propagation using a low-cost, fast sampling turbulence probe	Elias Marchetti; Ian Benson; Alan Hunter; Anna Young
	977	A multi-scale analytical model for the performance of a tidal stream array in a tidal channel	Fei He; Yaling Chen; Athanasios Angeloudis; Christopher Vogel; Thomas Adcock
	1011	High-Fidelity Tidal Current Modelling in Irish Sites to Inform the Feasibility of Novel Energy Use Cases	Md Ashkar Bin Sayeed; Fiona Devoy McAuliffe; Brendan Cahill; Patrick Cronin; Michael O'Shea
17.30	**TBC**		

TDD	Tidal device development and testing 1		ROOM 4
		Chair: Carwyn Frost	
Time	**ID**	**Title**	**Authors**
9.00	**708**	Hydrodynamic analysis and fatigue loading evaluation of a tidal turbine	Kai Xu; William Finnegan; Fergal O'Rourke; Jamie Goggins
	710	Kai Xu; William Finnegan; Fergal O'Rourke; Jamie GogginsTidal turbine versus wind turbine drive train testing – synergies and challenges	Tobias Bauer; Georg Jacobs; Julian Röder; Maximilian Zweiffel; Jakob Roth
	756	Passively Pitching Blades for Tidal Turbines: Design and Modelling	Kuba Frankowski; Puja Sunil; Michael O'Sullivan; Anna Young; Riccardo Broglia; Edward McCarthy; Ignazio Maria Viola
	802	Sensor Placement Optimisation for FastBlade Reaction Frame Health Monitoring Using Machine Learning Approaches	Gabrielis Cerniauskas; Sergio Lopez Dubon; Fergus Cuthill; Edward David McCarthy McCarthy; James A. Quinn; Marek Jan Munko; Dilum Fernando
10.30	**TBC**		
	Coffee Break		
TDD	Tidal device development and testing 2		**ROOM 4**
		Chair: William Finnegan	
11.00	**804**	Experimental study of a quadrirotor twin vertical axis tidal turbine behaviour under regular waves	Yanis Saouli; Benoît Gaurier; Grégory Germain; Guillaume Maurice
	817	A tool for visualising the control landscape of a passively pitched tidal turbine	Frederick Gibbs; Markus Mueller; Jeremy Smith; Mohammad Abusara; Selda Oterkus
	835	Optimising Tidal Lagoon Design and Operations for Energy Generation	Jingjing Xue; Evans Paul; Nikolaos Spanakis; Matthew Allmark; Rebecca Jeffrey; Deri Lamb
	843	System Integration of an Instrumented Open-Source Tidal Energy Converter (OSTEC) Testbed	Parviz Sedigh; Mason Bichanich; Martin Wosnik; Aidan Bharath; Vincent Neary; Robert Cavagnaro; Kenneth Lannamann
	1087	Open source tidal turbine: experience of operations at the Marine Energy Test Area	Ian Masters; Ali Esmaeili; Iestyn Evans; Deepak George; David Glasby; Jose Horrillo-Caraballo; Tom Lake; Michael Togneri; Alison Williams
12.30	**TBC**		
	Lunch Break		

TDD	Tidal device development and testing 3		ROOM 4
	Chair: Cameron Johnstone		
Time	**ID**	**Title**	**Authors**
14.00	**860**	A 1-m scale axial-flow turbine instrumented test bed for the UNH towing tank – comparison of experimental and numerical results	Megan Andersen; Dongyoung Kim; Vincent Neary; Martin Wosnik
	909	UNH-MODAQ: An implementation of NREL's Modular Ocean Data Acquisition System for the Open Source Tidal Energy Converter (OSTEC) Project	Mason Bichanich; Aidan Bharath; Martin Wosnik; Robert Raye; Parviz Sedigh; Charles Candon
	916	Implications of span-wise inflow variation on incident flow measurement of a transverse axis crossflow tidal turbine	Jan Dillenburger-Keenan; Patrick Cronin; Harry Knoblauch; Conor Dillon; Carwyn Frost
	917	Testing a novel tidal turbine design with passive blade-pitch and reversible rotor mechanism	Thomas Summers; George Dadd; Callum Watkins; Justin Hinshelwood; Jonathan Shek; Selda Oterkus
	TBC		
15.30	**Coffee Break**		
THM	Tidal hydrodynamic modelling 3		**ROOM 4**
	Chair: Stephanie Ordóñez-Sánchez		
16.00	**753**	Analysis of Transient Inlet Velocity Impacts on Hydrodynamic Performance, Blade Loading, and Wake Dynamics on a Horizontal Axis Tidal Turbine using	Abiola Akinnibosun; Dominic Groulx
	979	Operation of a hydrokinetic turbine over a mobile sediment bed	Jiafeng Yang; Sulaiman Hurubi; Pablo Ouro; Eugeny Buldakov; Thorsten Stoesser
	990	Effects of synthetic sheared flow on a utility-scale rotor in an open channel	Bogosi Msutwana; Xiaosheng Chen; Richard Willden
	1006	Tidal turbines under combined currents and waves: experimental and numerical study	Federico Zilic de Arcos; James McNaughton; Richard Willden; Christopher Vogel; Gregory Pinon
17.30	**TBC**		