High Performance Yacht Design 8 Program

Thursday 21st of March 2024			Friday 22nd of March 2024		
Time (NZDT)	**Event**	**Location**	**Time (NZDT)**	**Event**	**Location**
07:00	Registration Welcome coffee	NZ Marine	07:00	Welcome coffee	NZ Marine
07:20	Conference opening remarks		07:15	Conference information + CSYS	
07:30 09:30	**Technical session 1**		07:30 09:30	**Technical session 4**	
09:30 10:00	Morning tea		09:30 09:50	Morning tea	
			09:50 10:00	JST presentation and announcements	
10:00 12:00	**Technical session 2**		10:00 12:00	**Technical session 5**	
12:00 12:10	Conference photo		12:00 12:10	Conference closing remarks	
12:10 13:00	Lunch break				
13:00 15:30	**Technical session 3**	NZ Marine	12:30 15:00	Social lunch (additional ticket)	Wynyard Pavilion
15:30 18:00	Break City sightseeing	Auckland			
18:00 22:00	**Industry and public session** (Free - Registration required)	The Maritime room			

NZ Marine: NZ marine building, 85 Westhaven Drive, St Mary's Bay, Auckland 1010

The Maritime room: Princes Wharf, Auckland CBD, Auckland 1010

Wynyard Pavilion: 17 Jellicoe Street, Auckland CBD, Auckland 1010

All times and dates are indicated on NZDT.

For technical session tickets holders: catering is provided for the welcome coffee, morning tea and Thursday 21st of March lunch break. Parking is free upon providing attendee vehicle registration numbers and mobile numbers during registration for text confirmation on the day. Parking is in white spaces only - no blue or yellow (unless people have a Westhaven Marina berth permit).

For the public session ticket holders: no parking is provided. Light refreshment and catering are included in the event.

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Session 1: Aerodynamics

Thursday
21/03
2024

Aerodynamic Performance of a 68m Ketch Sailing Yacht Obtained from Wind Tunnel Tests
Etienne Gauvain, Wolfson Unit MTIA, UK.
Mark Leslie-Miller, Dykstra Naval Architects, The Netherlands.

Online
07:30
08:00

Effect of Sail Rig-back Angle in Windsurfing Sailing
Kwan Pui Mok, Peng Zhou, Jiafan Hou, Xin Zhang The Hong Kong University of Science and Technology, Hong Kong SAR, China
Wenbin Song, Shanghai Jiao Tong University, China
Chi-Hung So, King Yin Chan, Hong Kong Sports Institute, Hong Kong SAR, China

In-person
08:00
08:30

Unsteady Upwind Aerodynamics of a Sailing Yacht
Lauren M. Matich, Peter Richards, Stuart Norris, University of Auckland, New Zealand

In-person
08:30
09:00

AC75 Aerodynamic Force Prediction Using a 3D Panel Code
Michele Francesco Melis, Hamburg University of Technology, Germany
Rafael Tannenberg, Stephen W. Boyd, University of Southampton, United Kingdom.
Martin Scharf, Institute for Fluid Dynamics and Ship Theory at Hamburg University of Technology, Germany.
Moustafa Abdel-Maksoud, Institute for Fluid Dynamics and Ship Theory at Hamburg University of Technology, Germany.

Online
09:00
09:30

Session 2: Wind assisted propulsion systems

Thursday
21/03
2024

Wind Tunnel Tests of a Two-Element Wingsail with Focus on Near-Stall Aerodynamics
Antonia Hillenbrand, Centre for Naval Architecture, KTH Royal Institute of Technology, Stockholm, Sweden; AlfaWall Oceanbird, Stockholm, Sweden,
Laura Marimon Giovanetti, Research Institutes of Sweden, Stockholm, Sweden.
Ulysse Dhomé, Jakob Kuttenkeuler Centre for Naval Architecture, KTH Royal Institute of Technology, Stockholm, Sweden.

In-person
10:00
10:30

Wind Propulsion Performance Prediction Impact on Bulk Carrier Business Case
Heikki Hansen, Karsten Hochkirch, Uwe Hollenbach, DNV, Germany

In-person
10:30
11:00

Towards ITTC Guidelines for Wind-Powered Ships
Sofia Werner, RISE, SSPA Maritime Center, Sweden

In-person
11:00
11:30

Dynamic Performance Prediction for Wind-Powered Ships
Martin Kjellberg, RISE Research Institutes of Sweden AB, Sweden,
Adam Persson, RISE Research Institutes of Sweden AB and Chalmers University of Technology, Sweden.
Frederik C. Gerhardt, Sofia Werner, RISE Research Institutes of Sweden AB, Sweden.

In-person
11:30
12:00

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Session 3: Aerodynamics and Hydrodynamics

Thursday
21/03
2024

CFD Study on the Different Stratifications of the Atmospheric Boundary Layer and their Effect on the Performance of Wind Propelled Ships
In-person
13:00
13:30

Chiara Wielgosz, RISE, SSPA Maritime Centre, Sweden; KTH Royal Institute of Technology, Sweden.
Laura Marimon Giovannetti, Sofia Werner, RISE, SSPA Maritime Centre, Sweden.
Jakob Kuttenkeuler, KTH Royal Institute of Technology, Sweden.

A Hierarchical Approach for Windsurfing Performance Analysis and Velocity Prediction
In-person
13:30
14:00

Jiafan Hou, Peng Zhou, Kwan Pui Mok, Qichen Tan, Xin Zhang, Hong Kong University of Science and Technology, Hong Kong SAR, China.
Wenbin Song, Shanghai Jiao Tong University, China.
Chi-Hung So, King Yin Chan, Hong Kong Sports Institute, Hong Kong SAR, China.

Decomposing the Physical Components of Resistance Acting on Hydrofoil Appendages
In-person
14:00
14:30

Lev Chernyshev, Natalia Kabaliuk, Mark Jermy, University of Canterbury, Christchurch, New Zealand.
Simon Corkery, Dan Bernasconi, Emirates Team New Zealand, Auckland, New Zealand.

Comparison of two commonly used Hydrofoils and their Propensity to Cavitation and Ventilation
In-person
14:30
15:00

James Mackenzie, Jonathan R Binns, Jonathan Duffy, University of Tasmania, Australia.

Development of an Adjoint VPP-Driven Hydrofoil Optimisation Framework
In-person
15:00
15:30

Rafael Tannenberg, University of Southampton, UK,
Karsten Hochkirch, DNV Ship Performance Center, Germany.
Andrea Walther, Humboldt-Universität zu Berlin, Germany.
Stephen R. Turnock, University of Southampton, UK.
Stephen W. Boyd, University of Southampton, UK.

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Session 4: Structure and Strategy

Friday 22/03 2024

Regulatory Developments in Structural Keel Design: A Revised ISO 12215-9
David Lyons, University of New South Wales Canberra, Australia
Arran Bird B.A.G. Ltd, New Zealand.
Richard Hinterhoeller, Retired, formerly Hinterhoeller Yachts, Canada.
Hasso Hoffmeister DNV, Germany.
Jean-Baptiste R. G. Souppez, Aston University, UK.

Online
07:30
08:00

The Influence of Tabbing on an End-Loaded Compression Test Specimen for Thick Marine Composites
Joshua Rout, Tom Allen and Mark Battley, The University of Auckland, Auckland 1023, New Zealand.

In-person
08:00
08:30

~~**Optimisation of yacht laminates under complex load states utilising a range of failure criteria**~~
~~Tobias Lorimer, Tom Allen, The University of Auckland~~ replaced by
Evaluation of Alternative Bow Topology to Improve Racing Yacht Crashworthiness
Alex Melia, Mark Battley, Tom Allen, University of Auckland, New Zealand.

In-person
08:30
09:00

A Data-driven Race Strategy Tool for Olympic Sailing Competitions
Björn Forsberg RISE, Sweden. Sepideh Pashami RISE, Sweden.
Elena Corona, Politecnico di Torino, Italy.
Federico Pezzoli, Università Commerciale Luigi Bocconi, Italy.
Leon René Sütfeld, RISE, Sweden.
Laura Marimon Giovannetti, RISE, Sweden.

In-person
09:00
09:30

Session 5: Fluid-Structure Interaction (FSI)

Friday 22/03 2024

On the Influence of Flow-Front Orientation on Stringer Stiffened Composite Panels in Water Impacts
Connor Pearson, The University of Auckland, Auckland 1023, New Zealand
Marius de Mourgues, Ecole Polytechnique Federale de Lausanne, Switzerland
Mark Battley, The University of Auckland, Auckland 1023, New Zealand
Veronique Michaud, Ecole Polytechnique Federale de Lausanne, Switzerland
John Little, PURE Design and Engineering, Auckland, New Zealand
Guillaume Verdier, Guillaume Verdier Architecture Navale, Morbihan, France
Tom Allen, The University of Auckland, Auckland 1023, New Zealand

In-person
10:00
10:30

Analysis on key parameters driving the mast stiffness accuracy for sail design using to fluid/structure simulation
Pierre-Yves Mechin, Dassault Systèmes, CATIA Composites, F-78140Vélizy-Villacoublay, France,
Vincent Keryvin Univ. Bretagne Sud, UMR CNRS 6027, IRDL, F-56321 Lorient, France.

In-person
10:30
11:00

Characterisation and Improvement of Aerodynamic Vibration in Modern Composite Rigging
Juanjo De La Cuesta, Marco Brizzi, Bartolomé Mas, Seth Cooley, Jonathan Duval, Future Fibres Rigging Systems, Spain.

In-person
11:00
11:30

Mast design performance-Influence of the non-linear elastic behaviour of carbon fibre composite plies on the accuracy of fluid/structure interaction models for estimating mast bending
Vincent Keryvin, Univ. Bretagne Sud, UMR CNRS 6027, IRDL, F-56321 Lorient, France,
Pierre-Yves Méchin, Dassault-Systèmes, CATIA Composites, F-78946 Vélizy-Villacoublay, France

In-person
11:30
12:00