

# MONDAY 1ST DECEMBER 2008

18:00 – 21:00 REGISTRATION AND OPENING COCKTAIL FUNCTION  
Bungalow8, The Viaduct, Auckland City

# TUESDAY 2ND DECEMBER 2008

- 08:00 – 09:00 REGISTRATION**  
School of Engineering, University of Auckland, Symonds Street, Auckland City
- 09:00 – 09:45 OPENING SESSION**  
Conference Opening and Official Welcome  
Opening Address – Ralph Cooney, Pro Vice-Chancellor Tamaki
- 09:45 – 10:30 KEYNOTE ADDRESS**  
Britt Ward, Farr Yacht Design
- 10:30 – 11:00 MORNING BREAK**
- 11:00 – 13:00 SESSION 1: STRUCTURES (Chair, Paul Bieker)**  
*Composite Optimisation – A Minefield of Opportunities*  
James Anderson & Sian Raynor  
*Comfortable Structure*  
Rozetta Payne & Nicolas Siohan  
*Low cycle fatigue of composite sandwich foam cores*  
Rebecca Islin, Mark Battley & Susan Lake  
*Hydroelastic Behaviour of Slam Loaded Composite Hull Panels*  
Mark Battley, Jason Schierlink, Tom Allen & Susan Lake
- 13:00 – 14:00 LUNCH**
- 14:00 – 15:00 SESSION 2: AERODYNAMICS - I (Chair, Richard Flay)**  
*A fully integrated method for optimising fibre-membrane sails*  
Sabrina Malpede & Alessandro Baraldi  
*V-SPARS: A combined sail and rig shape recognition system using imaging techniques*  
David Le Pelley & Owen Modral
- 15:00 – 15:30 AFTERNOON BREAK**
- 15:30 – 17:00 SESSION 3: YACHT DESIGN PROCESS (Chair, Susan Lake)**  
*A Web Service for Yacht Designers*  
Matteo Ledri, Mauro Poian, Rosario Russo & Enrico Nobile  
*K-Spline: a new curve for advanced hull modelling*  
Kevin Cudby  
*Exploring Automatic Evolutionary Yacht Sail Design*  
Vicente Diaz Casás, Fernando Lopez Peña & Richard J. Duro
- 17:00 – 18:00 LIGHT REFRESHMENTS**
- 18:00 – 19:00 PUBLIC LECTURE (Chair, David Le Pelley)**  
*Composite design techniques, International 14 design and high efficiency hull forms*  
Paul Bieker

# WEDNESDAY 3RD DECEMBER 2008

09:00 – 10:30

## **SESSION 4: AERODYNAMICS – II (Chair, Len Imas)**

*Wind Tunnel and CFD Investigation of Unconventional Rigs*

Fabio Fossati, Sara Muggiasca & Ignazio Viola, Fabrizio Martina,  
Alessandro Nazareth & Andrea Vallicelli

*Optimisation of spanwise lift distributions for upwind sails*

Peter Richards, Timm Junge, Heikki Hansen, David Le Pelley &  
Frederik Gerhardt

*Lifting line method of modelling covering and blanketing effects for yacht fleet race simulation*

Thomas Spenkuch, Stephen Turnock, Matteo Scarponi & Ajit Sheno

10:30 – 11:00

## **MORNING BREAK**

11:00 – 12:00

## **SESSION 5: HYDRODYNAMICS – I (Chair, Lars Larsson)**

*The effect of heel angle and free-surface proximity on the performance and strut wake of a Moth sailing dinghy rudder T-foil*

Jonathan Binns, Paul Brandner & Julien Plouhinec

*CFD-Based Hydrodynamic Analysis of High Performance Racing Yachts*

Len Imas, Greg Buley, Bryan Baker & Britt Ward

12:00 – 13:00

## **LUNCH**

13:00 – 14:30

## **SESSION 6: MOTIONS & PERFORMANCE PREDICTION (Chair, Britt Ward)**

*Tacking Simulation of Sailing Yachts with New Model of Aerodynamic Force Variation*

Yutaka Masuyama & Toichi Fukasawa

*Unsteady Aerodynamic Phenomena Associated With Sailing Upwind In Waves*

Frederik Gerhardt, Richard Flay & Peter Richards

*The development and use of sailing simulation for IACC starting manoeuvre training*

Jonathan Binns, Karsten Hochkirch, Frank DeBord & Ian Burns

15:00 – 18:30

## **Match racing event sponsored by Intercad in conjunction with Emirates Team New Zealand**

19:00 onwards

## **BBQ**

Emirates Team New Zealand base, Halsey St, Auckland.

# THURSDAY 4TH DECEMBER 2008

- 09:00 – 10:30**    **SESSION 7: CFD (Chair, Karsten Hochkirch)**  
*High Fidelity CFD Simulations in Racing Yacht Aerodynamic Analysis*  
Len Imas & JB Braun  
*Close coupling of a CFD sail model with a VPP*  
Stuart Norris & Peter Richards  
*The use of ANSYS CFX in America's Cup Yacht design*  
Nick Hutchins
- 10:30 – 11:00**    **MORNING BREAK**
- 11:00 – 12:30**    **SESSION 8: HYDRODYNAMICS – II (Chair, Graeme Finch)**  
*A Numerical Investigation Into the Hydrodynamic Performance of a Fin With a Scalloped Leading Edge*  
William van Rees & Len Imas  
*Numerical Investigations Of The Effects Of Winglets On IACC Yacht Drag Components*  
Michal Orych, H Ran & Lars Larsson  
*Strong Coupled VPP and CFD RANSE Codes on Sailing Yacht Performance Prediction*  
Yann Roux, Mathieu Durand, Alban Leroyer, Patrick Quetey, Michel Visonneau & Aji Purwanto
- 12:30 – 13:30**    **LUNCH**
- 13:30 – 15:30**    **SESSION 9: AERODYNAMICS – III (Chair, Peter Richards)**  
*Performance Prediction Of the Olympic Variant Tornado Class Catamaran*  
Richard Flay, Stuart Norris, Katherine Halliburton, Daniel Jowett & Natasha Erriu  
*Measurement and Simulation of Pressure Distribution on Full Size Sails*  
William Graves, Todd Barbera, JB Braun & Len Imas  
*The effects of staysails on yacht performance*  
David Le Pelley, Lief Kjelberg & Richard Flay  
*Development of a three-dimensional inverse sail design method*  
Julien Pilate, Frederik Gerhardt & Richard Flay
- 15:30 – 15:45**    **CLOSING REMARKS**
- 19:30 – 22:30**    **CONFERENCE DINNER**

Royal New Zealand Yacht Squadron, Westhaven Marina, Auckland City

## ORGANISING COMMITTEE

Mr David Le Pelley, University of Auckland (Chair)  
Dr Mark Battley, University of Auckland  
Mr Graeme Finch, Finch & Associates  
Prof. Richard Flay, University of Auckland  
Mrs Susan Lake, High Modulus  
Ms Helen Queckett, RINA NZ  
Assoc. Prof. Peter Richards, University of Auckland (Tech. Chair)

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