

Tuesday 27th June

17:00 – 19:00 : Welcome and registration

18:00 – 19:00 : Icebreaker cocktail at Cité de la Voile Eric Tabarly

Wednesday 28th June

8:00 – 9:00 : Welcome and registration

9:00 – 9:30 : Welcome address

9:30 – 10:30 : **Keynote lecture: Modal Approach to Appendage Design**

Guillaume Verdier, Guillaume Verdier Architecture

10:30 – 11:00 : Coffee break

11:00 – 12h30 : **Performance – VPP - Design**

System-Based Modelling of a Foiling Catamaran

B. Horel

Ecole Centrale de Nantes, LHEEA, France

Velocity Prediction of Wing-Sailed Hydrofoiling Catamarans

N. Hagemester and R. G. J. Flay

Yacht Research Unit, University of Auckland, New-Zealand

The Foiling Optimist

A. Andersson, A. Barreng, E. Bohnsack, L. Larsson, L. Lundin, R. Sahlberg, E. Werner, C. Finnsgård, A. Persson, M. Brown and J. McVeagh

Chalmers University of Technology, Sweden, SSPA Sweden AB, Sweden

12:30 – 14:00 : Lunch break

14:00 – 15:30 : **FSI on appendages**

Fluid Structure Interaction Design Development of Passive Adaptive Composite International Moth Foil

L. Marimon Giovannetti, J. Banks, M. Ledri, S.W. Boyd, and S.R. Turnock

University of Southampton, UK, Land Rover BAR, UK

Towards Unsteady Approach for future flutter calculations

L. Mouton, A. Leroyer, G.B. Deng, P. Queutey, T. Soler, and A. Finkelstein

Bureau Veritas, France, Ecole Centrale de Nantes, LHEEA UMR-CNRS 6598, France, Farr Yacht Design, USA

Racing Yacht Appendages Optimisation using Fluid-Structure Interactions

R. Balze N. Bigi, K. Roncin, J. B. Leroux, A. Nême, V. Keryvin, A. Connan, H. Devaux and D. Gléhen

GSea Design, France, ENSTA Bretagne, FRE CNRS 3744, IRDL, France, Univ. Bretagne Sud, FRE CNRS 3744, IRDL, France

15:30 – 16:00 : Coffee break

16:00 – 16:30 : Introduction to posters (see poster list)

16:30 – 17:00 : Presentation of European projects SAILING FLUIDS and EURO-SAIL

17:15 – 20:00 : BtoB meetings and Animations, cocktail Pole Mer Bretagne Atlantique

Thursday 29th June

9:00 – 10:30 : Hydrodynamics

Performance Evaluation and Ranking of 7 Rudders for the Finn Dinghy

A. Persson, L. Larsson, M. Brown and C. Finnsgård

SSPA Sweden AB, Sweden, Chalmers University of Technology, Sweden

Investigation of Modern Sailing Yachts using a New Free-Surface RANSE Code

K. Graf, J. Meyer, H. Renzsch and C. Preuß

Univ. Applied Sciences Kiel, Germany, Fluid Engineering Solutions, Germany

Unlocking Hydrofoil Hydrodynamics with Experimental Results

J.R. Binns, A. Ashworth-Briggs, A Fleming, J. Duffy, M. Haase and M. Kermarec

Australian Maritime College, University of Tasmania, Australia, Artemis Racing

10:30 – 11:00 : Coffee break

11:00 – 12:30 : Aerodynamics

Aerodynamic Analysis around a C-Class Catamaran in Gust Conditions using LES and Unsteady RANS Approaches

A. Fiumara, N. Gourdain, V.-G. Chapin and J. Senter

Assystem France, France, ISAE-Supaéro, France

Full Scale Pressure Measurements from SYL Navigation: an Upwind Case Study

I. Bayati, S. Muggiasca, P. Schito, A. Vandone and M. Belloli

Politecnico di Milano, Italy

Unsteady Aerodynamics of Downwind S-Turns in Small Boat Sailing

R.R. Schutt and C.H.K. Williamson

Cornell University, Ithaca, NY, USA

12:30 – 14:00 : Lunch break

14:00 – 16:00 : Aerodynamics

The Leading-Edge Vortex of Yacht Sails

I. M. Viola and A. Arredondo-Galeana,

Institute of Energy Systems, School of Engineering, University of Edinburgh, UK

Large Eddy Simulation of Downwind Sailing

S. Nava, J. Cater and S. Norris

University of Auckland, New-Zealand

To Curl or not to Curl: Wind Tunnel Investigations of Spinnaker Performance

N. Aubin, B. Augier, J. Deparday and M. Sacher

Naval Academy Research Institute, France

Aerodynamics of a Highly Cambered Circular Arc Aerofoil: Experimental and CFD Investigations

R.G.J. Flay, A. Piard and P. Bot

University of Auckland, New-Zealand, Ecole Navale IRENav, France

16:00 – 16:30 : Coffee break

16:30 – 18:00 : Hydrodynamics, Structures

Comparison of Hydrodynamic Performances of an Imoca 60' with Straight or L-Shaped Daggerboard

L. Mazas, Y. Andrillon, A. Letourneur, P. Kerdraon and G. Verdier

HydrOcean, France, VPLP, France, Verdier Architecture Navale, France

Moderate-cost approaches for hydrodynamic testing of high performance sailing vessels

S. Day, P. Cameron, E. Nixon, University of Strathclyde, Glasgow, Scotland

An Analytical Approach to Estimate the Compressive Strength of Carbon Fibre Reinforced Plastics

P.Y. Mechin, V. Keryvin, J.C. Grandidier and D. Glehen

Univ. Bretagne Sud, IRDL CNRS 3744, France, ISAE-ENSMA, Pprime CNRS 3346, France, GSea Design, France

19:00 – night : Banquet at Cité de la Voile Eric Tabarly

Friday 30th June
Palais des Congrès, Lorient, city centre

9:00 – 10:00 : Keynote lecture

Foil developments in the America's Cup

Martin Fischer, Groupama Team France

10:00 - 10:30 : FSI on foils

Flexible Hydrofoil Optimization for the 35th America's Cup with Constrained EGO Method

M. Sacher, M. Durand, E. Berrini, F. Hauville, R. Duvigneau, O. Le Maître, J.A. Astolfi

Naval Academy Research Institute, France, K-Epsilon, France, Groupama Team France, Sirli Innovations, France, MyCFD, Université Côte d'Azur, INRIA, CNRS, France, LIMSI - CNRS, France

10:30 – 11:00 : Coffee break

11:00 – 12:15 : **Wind-assisted ship propulsion**

Hydrodynamics of Wind-Assisted Ship Propulsion Validation of Rans-CFD Methodology

N.J. van der Kolk, J.A. Keuning and R.H.M. Huijsmans

Delft University of Technology, The Netherlands

Beyond The Sea (1 joint presentation with 3 contributions)

Ship Towed by Kite in Waves: a Strongly Coupled System

N. Bigi, J. B. Leroux, K. Roncin, A. Nême, C. Jochum and Y. Parlier

ENSTA Bretagne, France, Beyond the sea, France

Modelling and Control of a Tethered Kite in Dynamic Flight

B. Cadalen, F. Griffon, P. Lanusse, J. Sabatier and Y. Parlier

Beyond The Sea, France, Bordeaux INP, IMS UMR 5218, France

Experimental Set up for Measuring Onshore and Onboard Performances of Leading Edge Inflatable Kites - Presentation of Onshore Results

M. Behrel, K. Roncin, J.-B. Leroux, F. Montel, A. Nême, C. Jochum and Y. Parlier

ENSTA Bretagne, France, Beyond the sea, France

12:15 – 12:30 : Conference closing

12:30 – 14:00 : Lunch at Palais des Congrès

Poster List

Hydrofoiling Catamaran Experimental Research Platform

A. Ayan, T. Ballantine, J.Banks, S.W. Boyd, J. Carson, J. Diamond, F. Hayes, S. Jones, L. Marimon Giovanetti and A. Vose

University of Southampton, UK

Hull – Furniture Interaction in the Primary Response to Global Loads of a Sailing Yacht

D. Boote, G. Vergassola, S. Baldi and N. Fago

University of Genova, Italy, Naval Architect, Italy

Hard Grounding of Large Sailing Yacht

H. Conradi, H. Hoffmeister and S. Ehlers

Hamburg University of Technology, Germany, DNV GL, Germany

The Paper Boat: Building a Composite Optimist Dinghy with Cellulose Fiber and Epoxy Matrix

C. Finnsgård, M. Rigdahl, M. Brodin, G. Richardsson and G. Westmann

Centre of Sport and technology, Sweden, Chalmers University of Technology, Sweden, Royal Institute of Technology, Sweden

Smart Coatings for Drag Reduction In Yachts

B. Kidd, E. Balaras, M. Kashtalyan, I. M. Viola and T. I. Jozsa

University of Edinburgh, UK, University of Aberdeen, UK, George Washington University, DC, USA, International Paint Ltd., Felling, UK

Rowing with and without Oars

R. Labb, J.P. Boucher, T. Mouterd and C. Clanet
LadHyX, France

AVS: A Framework for Parametric Models Setting Dedicated to Simulation of Racing Multihull Behavior

E. Lavigne, G. Guillou and JP. Babau
Lab-STICC/UBO, France

Integration of a Ducted Hydrogenerator in the Hull of the Maxi-trimaran Spindrift 2

L. Mazas, D. Barcarolo, Y. Troalen and M. Michou
HydrOcean, France, Spindrift racing, France, Watt&Sea, France

Bayesian Strategies for Simulation-based Optimisation and Response Surface Creation Using a Single Tool. Application to Hydrofoil Optimisation

P. Ploé, R. Lanos, M. Visonneau and J. Wackers
Ecole Centrale de Nantes / CNRS / STREAMLINE, France

New Methodology of Bending Fatigue Test and Slamming Test on PVC Foam Core Sandwich with GFRP Faces

F. Alila, P. Casari, R. Gerard, J. Fajoui, M. Kchou and F. Jacquemin
Institut de recherche en génie civil et mécanique, France, Gurit (APAC) Ltd, New-Zealand, Univ. Sfax, National Engineering School of Sfax, Tunisia

Modelling of Hull Roughness

N. Speranza, I.M. Viola, B. Kidd, Institute for Energy Systems, School of Engineering, University of Edinburgh, UK, AkzoNobel, International Paint Ltd, UK

