



Numeca International USER MEETING 2017

AGENDA

Monday November 13th

START OF MEETINGS at 09:00h

PLENARY SESSION

Inspiring the Way to Multiphysics and Optimization

Prof. Charles Hirsch, *NUMECA International*

Numeca at ArianeGroup

Guillaume Challier, *ArianeGroup*

NUMECA Recent Developments and short term Perspectives

Marc Tombroff, *NUMECA International*

New Generation of NUMECA Software Environment: OMNIS Multiphysics Platform

Marc Tombroff, *NUMECA International*

Coffee break

Winning the America's Cup with FINE™/Marine

Nick Hutchins, *Emirates Team New Zealand*

Solutions for Aero & Multiphysics Industry

Jonathan Brunel, *NUMECA International*

Solutions for the Turbomachinery Industry

Yannick Baux, *NUMECA International*

Peter Weitzman, *Concepts NREC*

Solutions for the Marine Industry

Benoit Mallol, *NUMECA International*

Mpacts: Discrete Element Solver

Simon Vanmaercke, *Mpacts*

LUNCH

PARALLEL SESSIONS

TURBO, AERO & MULTIPHYSICS SESSION

What's new in our Turbo solution

Yannick Baux, *NUMECA International*

FINE™/Open application for light cargo aircraft

Vitaly Gubsky, *TsAGI*

Sensitivity Study on Parameters for Wake Transmission - CROR in Cruise Conditions

Gael Napias, *ISAE Supaero*

Flow simulation of low-flow rate centrifugal compressor stages

Vladimir Neverov, *Entechmach*

Optimal blade design and test validation for a diagonal turbine

Rémi Lestriez, *Numiberica*

Study of the circumferential distortion in a centrifugal compressor

Olga Marakueva, *NUMECA Russia*

MARINE SESSION

What's new in our Marine solution

Benoit Mallol, *NUMECA International*

Using CFD for medium & high speed vessels

Niels Kleijweg, *CoCo Yachts*

Develop vessels and compare hull shape with conventional propulsion and electric propulsion

Kasper van der Heiden, *Jumbo Maritime*

Grid convergence studies using adaptive refinement

Jeroen Wackers, *École Centrale de Nantes*

Parametric Hull and Appendage Design for Wind Farm Installation Vessel

Harry Linskens, *DEKC Maritime*

Speed-power prediction for engineering trailing suction hopper dredgers (TSHD's)

Manuel Cerro Diaz de Teran & Hans Vreugdenhill, *Royal IHC*

Experimental Validation of RANS-CFD Methodology for Wind-Assisted Ships Operating at Leeway Angles

Nico Van der Kolk, *TU Delft*

SESSIONS END at 17:45h



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Tuesday November 14th

START OF MEETINGS at 09:00h

PLENARY SESSION

Lattice Boltzmann methods for LES and coupled physics
Introducing OMNIS™/LB: mesoscopic simulations made simple
Gearbox design and simulation
Paving the Way: Unstructured Meshing Solutions

Jonas Latt, *FlowKit*
 Tim Odenthal, *NUMECA International*
 Barry James, *Romax Technologies*
 B.Mallol, Y.Baux, J.Brunel, N.Delsate, O.Arduino, *NUMECA International*

Coffee break

Integrated CFD Acoustics Solution for Tonal and Broadband Noise Prediction
Simulation and design of a full micro turbine engine
Advanced Applications in Flow Engineering
Uncertainty Quantification and Robust Design Optimization: various applications
HPC
SaaS: NUMECA's cloud platform

Piergiorgio Ferrante, *NUMECA International*
 Yannick Baux, *NUMECA International*
 Virginie Barbieux, *NUMFLO*
 Dirk Wunsch, *NUMECA International*
 David Gutzwiller, *NUMECA International*
 Aji Purwanto, *NUMECA International*
 Reha Senturk, *UberCloud*

LUNCH

PARALLEL SESSIONS

TURBO, AERO & MULTIPHYSICS SESSION

Combustion Modeling in FINE™/Open with OpenLabs™ Jan Anker, *NUMECA International*
Hexpress™/Hybrid for combustion Thijs Bouten, *OPRA Turbines*
FINE™/Design 3D results for compressor and axial pump optimization Edward Childs, *Concepts NREC*
Modeling industrial burners with FINE™/Open Cosmin Katona, *Europem*
Aerodynamic predictions of the NASA-CRM case for JAXA workshop Jonathan Brunel, *NUMECA International*
Modeling of unsteady phenomena in an axial compressor Olga Marakueva, *NUMECA Russia*

MARINE SESSION

Validation of Wind Loads on a Slender Vessel using CFD Marco Bovio, *DAMEN Group*
Hydrodynamic comparison of T-shaped rudders Xavier Guisnel, *VPLP Design*
FINE™/Marine applied to maneuverability and vortex detection Romain Huret, *Sirehna*
Propeller analysis with FINE™/Marine in the Cloud Leo Poppelier, *SIP Marine*
The use of FINE™/Marine in the design of the Next Volvo Ocean Race Boat Veronique Soule, *Guillaume Verdier*
CFD RANS scripting with FINE™/Marine : workflow & applications for Groupama Team France Paul Descateaux, *Groupama*
 Ludwig Kerner, *NUMFLO*

SESSIONS END at 17:30h



Numeca International USER MEETING 2017

AGENDA

Wednesday November 15th

Optional full day of dedicated application workshops.

Get up to speed on the latest developments and modeling capabilities.

START OF MEETINGS at 09:00h

PARALLEL SESSIONS	<u>TURBOMACHINERY SESSION</u>	<u>MULTIPHYSICS SESSION</u>	<u>MARINE SESSION</u>
	Unsteady flows with the Nonlinear Harmonic method	Acoustics for external and internal aerodynamics	Propulsion simulation including FINE™/Turbo with AutoGrid5™
<i>Coffee break</i>			
Acoustics for turbomachinery	Lagrangian Combustion	Propulsion simulation including FINE™/Turbo with AutoGrid5™ (part II) How to make efficient overset grids simulation Wave generation: new guidelines	
<i>LUNCH</i>			
Uncertainty Quantification and Robust Design Optimization Preliminary to detailed design	Uncertainty Quantification and Robust Design Optimization Introduction to OMNIS/HEXPRESS 2.2	C-Wizard in matrix mode for HPC simulations Latest guidelines and findings Maneuvrability using AGR, dynamic library	
<i>Coffee break</i>			
Multi-Disciplinary Optimization <i>Open Discussion</i>	Introduction to OMNIS/OPEN 2.2 <i>Open Discussion</i>	Rhino plugin Frequently Asked Questions <i>Open Discussion</i>	

SESSIONS END at 17:30h