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614<sup>th</sup> Conference

*Scientific Program*

Global Summit and Expo on

# Fluid Dynamics & Aerodynamics

August 15-16, 2016

London, UK



**Hosting Organizations: Conference Series LLC**

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09:30-10:00 Registrations

## Training room 1

conference**series**.com 10:00-10:20

## Opening Ceremony

## Keynote Forum

10:20-10:25 Introduction

10:25-11:05 Title: Recent developments in train aerodynamics

Hassan Hemida, University of Birmingham, UK

Networking and Refreshments Break: 11:05-11:25 @ Foyer

Group Photo

11:25-12:05 Title: Active flow control from fluidic oscillators to future applications

Josep M Bergada, Polytechnic University of Catalonia, Spain

## Major Sessions:

## Fluid Dynamics | Numerical Methods | CFD Methodology &amp; Models

Session Chair: Olga V. Mitrofanova, National Nuclear Research University MEPhI, Russia

Session Co-chair: Yeng-Yung Tsui, National Chiao Tung University, Taiwan

## Session Introduction

12:05-12:30 Title: A study of the fluidic movement of the hydrated products from the early carbonation curing in cementitious paste and the effects on the mechanical and porosity properties

Alex Neves Junior, Federal University of Mato Grosso, Brazil

12:30-12:55 Title: Development of mathematical models of technological processes with using heat flux calorimetry

Iurii Sharikov, National Mineral Resources University, Russia

## Lunch Break 12:55-13:35 @ Orwell's Brasserie

13:35-14:00 Title: A finite element approach derived from the simplified variational principle

Asher Yahalom, Ariel University, Israel

14:00-14:25 Title: Research on sheet cavitation numerical predicted and estimation of tip vortex cavitation inception of ducted propeller with pre-swirl stator

Zhengfang Qian, Naval Academy of Armament, China

14:25-14:50 Title: Active flow control applied on a NACA 2412 profile, possible devices to use and its expected performance efficiency

Josep M Bergada, Polytechnic University of Catalonia, Spain

14:50-15:15 Title: A fluid dynamics approach to the dynamics of microscopic systems

Eric Suraud, Université Paul Sabatier, France

15:15-15:40 Title: Numerical prediction of the integral length scale of isotropic turbulence

Kaifu Ye, Naval Academy of Armament, China

## Networking &amp; Refreshment Break 15:40-16:00 @ Foyer

16:00-16:25 Title: Hydrodynamic performance prediction of submarine considering fluid-structure interaction via CFD/FEM

Jingwei Jiang, Naval Academy of Armament, China

16:25-16:50 Title: Studies of the mechanisms of vortex generation in nature and in engineering

Olga V. Mitrofanova, National Nuclear Research University MEPhI, Russia

16:50-17:15 Title: Simulations of non equilibrium flows by kinetic methods and non classical effects

V V Aristov, RAS - Federal Research Centre "Computer Science and Control", Russia

## Closing Ceremony

## Training room 1

### Sessions:

**Aerodynamics | Wind Tunnel | Thermo-Fluid Dynamics**

Session Chair: **Mohamed A. Samaha**, Rochester Institute of Technology, Dubai Campus, UAE

Session Co-chair: **Iurii Sharikov**, National Mineral Resources University, Russia

### Session Introduction

**10:00-10:25** Title: **Modeling of the coupled conduction-convection ice formation on a horizontal finned tube under density inversion conditions**

**Mohamed A. Samaha**, Rochester Institute of Technology, Dubai Campus, UAE

**10:25-10:50** Title: **Aerodynamic investigations of low speed tailless mini unmanned aerial vehicle**

**Wanchai Jiajan**, Royal Thai Air Force Academy, Thailand

### Networking & Refreshment Break 10:50-11:10 @ Foyer

**11:10-11:35** Title: **Onset of flow instability and turbulence development over distributed sinusoidal 2D and 3D roughness**

**Leonardo P. Chamorro**, University of Illinois at Urbana-Champaign, USA

**11:35-12:00** Title: **Heat transfer enhancement by corona discharge**

**Yeng-Yung Tsui**, National Chiao Tung University, Taiwan

**12:00-12:25** Title: **Methods to measure CO<sub>2</sub> captured in cement applications**

**Alex Neves Junior**, Federal University of Mato Grosso, Brazil

**12:25-12:50** Title: **Line preserving flows in the Euler potentials formalism**

**Przemyslaw Figura**, Space Research Centre - Polish Academy of Sciences, Poland

### Lunch Break 12:50-13:30 @ Orwell's Brasserie

### Young Research Forum

**13:30-13:50** Title: **Fluidic oscillators performance evaluation when modifying its internal dimensions**

**Carlos Andres Candelo**, Polytechnic University of Catalonia, Spain

**13:50-14:10** Title: **Numerical study to improve the numerical instability of lattice Boltzmann method**

**Bo AN**, Polytechnic University of Catalonia, Spain

**14:10-14:30** Title: **Numerical investigation on instability of flow around planar cascade of aerofoils based on energy gradient theory**

**Hui Yang**, Zhejiang Sci-Tech University, China

**14:30-14:50** Title: **Numerical study of hydrodynamic characteristics of gas-liquid slug flow in vertical pipes**

**E Z Massoud**, University of Strathclyde, UK

### Session Discussion

**Thanks giving & Closing ceremony**

## Bookmark your dates

2<sup>nd</sup> Global Summit and Expo on

# Fluid Dynamics & Aerodynamics

October 19-20, 2017 Rome, Italy

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