



ERCOFTAC Autumn Festival 2022 hosted by Pilot Centre Henri Bénard/LMFA/Ecole Centrale de Lyon

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**Day 1: Thursday, 6<sup>th</sup> October 2022**

Ecole Centrale de Lyon, 36 Av. Guy de Collongue, 69134 Écully  
Skylab, Conference-room Co-Design

**PC Henri Bénard presentations**

- 09:00 - 09:20 *Welcome and forewords by Christophe Corre (ECL) and Christophe Bailly (LMFA)*
- 09:20 – 09:50 ***Multi-GPU Lattice Boltzmann simulation of solar wind turbulence***  
by Emmanuel Levêque (LMFA, France)
- 09:50 - 10:20 ***Near-nozzle acoustic tones in free jets: coupling with Kelvin-Helmholtz instability waves***  
by Christophe Bogey (LMFA, France)
- 10:20 – 10:40 *Refreshment Break*
- 10:40 - 11:10 ***Settling and collision of ice crystals in turbulent clouds***  
by Alain Pumir (ENS Lyon, France)
- 11:10 - 11:40 ***Adaptive methods in the simulation of two-phase flows with interfaces***  
by Vincent Moureau (CORIA, Rouen, France)
- 11:40 - 12:10 ***Weak spots and perforations in thin liquid sheets***  
by Stephane Zaleski (Inst. D'Alembert, Sorbonne-University, Paris, France)
- 12:10 – 12:40 ***Metal powder production in a supersonic injector with swirl***  
by Nicolas Rimbert (LEMETA, Vandoeuvre-lès-Nancy, France)
- 13:00 - 13:40 *Lunch*

**Finals of the 17<sup>th</sup> ERCOFTAC Da Vinci Competition**

- 14:00 – 14:20 **Mobin Alipour** (TU Wien, Austria)  
***Orientation and rotation rates of non-axisymmetric fibers in turbulent channel flow***
- 14:20 – 14:40 **Lukas Berger** (RWTH Aachen University, Germany)  
***Numerical study on thermodiffusive instabilities in laminar and turbulent hydrogen flames***
- 14:40 – 15:00 **Nicolò Scapin** (KTH Stockholm, Sweden)  
***Phase-changing flows: numerical methods and fully resolved simulations***
- 15:00 - 15:20 **Markus Scherer** (Karlsruhe Institute of Technology, Germany)  
***Turbulent coherent structures, secondary currents and sediment ridges***
- 15:20 – 15:40 **Sumit Tambe** (TU Delft, The Netherlands)  
***Boundary-layer instability on rotating cones: an experiment-based exploration***



- 15:40 – 16:10 *Coffee Break / Committee meets and selects a winner*
- 16:10 – 16:40 **Da Vinci Award Ceremony and Closing**
- 16:40 - 17:40 **Visit of aero-acoustic facilities – presented by Prof. Mac Jacob**
- 19:30 **Dinner at "Le Bouchon des Filles"**  
The address is: 20, rue Sergent-Blandan, près de la place Sathonay, 69001 Lyon  
<https://lebouchondesfilles.fr/#trouver>

### **Day 2: Friday, 7<sup>th</sup> October 2022**

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#### **Scientific Programme Committee (SPC) and Knowledge Network Committee (KNC) Managing Board (MB) and General Assembly (GA) Meetings**

- 09:00 - 09:10 *Welcome*
- 09:10 - 12:30 **SPC and KNC Meetings**
- 10:30 – 11:00 *Coffee Break*
- 11:00 - 12:30 **SPC and KNC Meetings continue**
- 12:30 - 13:30 *Lunch*
- 13:30 - 16:30 **MB and GA Meetings**
- 15:00 – 15:30 *Coffee Break*
- 15:30 - 16:30 **MB and GA Meetings continue**

### **Monday/Tuesday, 10<sup>th</sup> and 11<sup>th</sup> October 2022**

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#### **Best Practice Guidance Seminar CFD for Dispersed Multi-Phase Flows 2022 with Problem Shooting Session**

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