



5th Symposium on Fluid-Structure-Sound Interactions and Control

Location : Crete – Greece

CHAIRPERSONS:

Dr. Marianna Braza - Institut de Mécanique des Fluides de Toulouse
France

Prof. Yannick Hoarau - ICUBE - University of Strasbourg France

LOCAL ORGANIZING COMMITTEE:

Prof. Georgios E. Stavroulakis & Dr. Maria Bakatsaki
Technical University of Crete, Chania, Greece

Host Institution:

Institut de Mécanique des Fluides de Toulouse, IMFT Unité Mixte de Recherche
UMR CNRS-INPT-UPS 5502, France

Programme Overview

| Monday, 26 August 2019 | |
|------------------------|----------------------------------------------------------------------|
| 17:00-18:50 | <i>Early registraion</i> |
| 19:00 – 21:00 | <i>Cocktail and buffet at the beach in front of the Minoa resort</i> |
| End of Day 0 | |

| Tuesday, 27 August 2019 | |
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| 8:30 - 9:30 | <i>Registration and welcome coffee & refreshments</i> |
| 9:30 - 9:40 | Welcome address |
| ROOM 1 | |
| Speaker: Professor : <i>Parviz Moin</i> , Stanford University, USA Progress and challenges in numerical simulation of transition and turbulence in aerospace applications Opening Lecture | |
| 9:40 - 10:30 | |
| | ROOM 1 |
| | ROOM 2 |
| 10:30-11:30 | Session 1 : Flow-Induced Vibrations |
| | Session 7 Immersed Interface methods & Lattice Boltzmann |
| 11:30-12:00 | Coffee break |
| 12:00 - 13:00 | Session 1 : Flow-Induced Vibrations |
| 13:00 - 14:10 | LUNCH |
| ROOM 1 | |
| Speaker: Professor : <i>Julian Hunt</i> , Univ. Cambridge & UCL, UK Turbulent interfaces interacting with deformable and vibrating solid structures Keynote Lecture | |
| 14:10 - 15:00 | |
| | Session 2.I : |
| | Oscillating/vibrating flows |
| 15:00 -16:20 | Session 8 Experimental approaches, energy harvesting |
| 16:20 - 16:50 | Coffee break |
| | Session 2.II : |
| | Oscillating/vibrating flows |
| 16:50 – 17:50 | Session 8 Experimental approaches, energy harvesting |
| 19:00 | <i>Departure for the boat trip, cocktail with finger food in the boat</i> |
| End of Day 1 | |

| Wednesday, 28 August 2019 | | | |
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| 9:00 - 9:40 | ROOM 1 Speaker: Professor : <i>Petros Koumoutsakos</i> , ETH, Zürich. Machine Learning for Flow Sensing and Control Plenary Lecture | | |
| 9:40 - 10:40 | ROOM 1 Session 3.I Fluid-structure interaction arising in aerodynamics | ROOM 2 Session 9.I Wake flows and FSI | ROOM 3 Session 12.IV Flow Control and acoustics |
| 10:40 - 11:10 | Coffee break | | |
| 11:10 - 12:00 | ROOM 1 Speaker: Professor : <i>Prof. Robert Antonia</i> University of Newcastle, Australia, Beijing, China Is small scale turbulence really anomalous ? Keynote Lecture | | |
| 12:00 - 13:00: | Session 3.II Fluid-structure interaction arising in aerodynamics | Session 9.II Wake flows and FSI | Session 12.IV Flow Control and acoustics |
| 13:00 - 14:10 | LUNCH | | |
| 14:10 - 14:50 | ROOM 1 Speaker: Professor : <i>Christophe Bailly</i> , Ecole Centrale de Lyon, France The acoustic and turbulent nature of wall pressure fluctuations Plenary Lecture | | |
| 14:50 - 16:10 | Session 3.III Fluid-structure interaction arising in aerodynamics | Session 9.III Wake flows and FSI | Session 12.V Self-sustained oscillations - stability |
| 16:10 - 16:40 | Coffee break | | |
| 16:40 - 17:10 | ROOM 1 Speaker: Professor : <i>Spiros Pantelakis</i> University of Patras, Greece EASN: Achievements and Challenges on boosting Aeronautics and Space Academia upstream research | | |
| 17:10-18:35 | ROOM 1 Session 4 Flow physics in aeronautics | ROOM 2 Session 9.IV Wake flows and FSI | |
| 19:30 | <i>Departure by bus to "Nyxterida" (= "Bat" in english) restaurant - gala dinner</i> | | |
| End of Day 2 | | | |

| Thursday, 29 August 2019 | | |
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| 9:00 - 9:40 | ROOM 1 Speaker: Professor : <i>Yu Zhou</i> , Harbin Institute of Technology, Schenzhen, China. Artificial intelligence control of turbulence Plenary Lecture | |
| 9:40 - 10:40 | ROOM 1 Session 5 : Turbulent jets and their control | ROOM 2 Session 10 : Fluid-Structure Interaction in internal flows |
| 10:40 - 11:10 | Coffee break | |
| 11:10 - 11:50 | ROOM 1 Speaker: Professor : <i>Alvaro Jara-Rodelgo</i> , Innovation Dept of Airbus Spain Increase of rudder efficiency by smart vortex generators: the power of foldable structures in aerodynamics Plenary Lecture | |
| 11:50-12:50 | Session 6.I : Acoustics - Noise generation | Session 11 : Vibration and flapping |
| 12:50-14:00 | LUNCH | |
| 14:00-14:40 | ROOM 1 Speaker: Professor : <i>Koji Fukagata</i> , Keio University, Japan Turbulent Friction Drag Reduction: From Feedback to Predetermined, and Feedback Again Plenary Lecture | |
| 14:40 - 15:40 | Session 6.II : Acoustics & Control | Session 12.I : Flow control - Drag reduction |
| 15:40 - 16:20 | Speaker: Professor : <i>Xiaofeng Sun</i> , University of Beihang, China Some progress in the acoustic design of aircraft engine Plenary Lecture | |
| 16:20-16:50 | Coffee break | |
| 16:50-17:50 | Poster presentations | Session 12.I : Flow control - Drag reduction |
| <i>Rest of the afternoon free</i> | | |
| End of Day 3 | | |

17:50-19:30 Meeting of the FSSIC2019 Committee Members and selection of Best poster's award

| Friday, 30 August 2019 | | |
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| 9:00 - 9:40 | ROOM 1 Speaker: Professor : <i>Wolfgang Schröder</i> , RWTH Aachen University, Germany Unstructured Flow and Acoustics Analysis Plenary Lecture | |
| 9:40 - 11:00 | ROOM 1 Session 6 Flow Control & Acoustics - I | ROOM 2 Session 12.II Flow control - plasma actuation |
| 11:00 - 11:30 | Coffee break | |
| 11:30-12:50 | Session 6 Flow Control & Acoustics - I | Session 12.III Flow control and modal analysis |
| 12:50 - 13:30 | <i>Closing address and round table discussion</i> | |
| 13:30 - 14:40 | LUNCH | |
| <i>End of the 5th FSSIC2019</i> | | |

Note : On 31 August: 8:30 a.m. : guided day- excursion in the archaeological site of Knossos and visit of Rethymnon port at the end of afternoon in the way back. Extra registration will be available in the symposium site.

15:15 - 19:00 : SMS H2020 European project first day's meeting restricted to the project's partners.