

Centre International des Sciences Mécaniques International Centre for Mechanical Sciences

PRELIMINARY PROGRAMME 2023

Alfred Kluwick Session

Fluid Mechanics of Planets and Stars

Coordinators: Michael Le Bars (Marseille, F), Daniel Lecoanet (Evanston, IL, USA)

April 17 - 21

Plastic Anisotropy and Damage from Single Crystal to Engineering Scale

Coordinators: Oana Cazacu (Gainesville, FL, USA), José A. Rodríguez-Martínez (Madrid, ES)

May 22 - 26

Interfacial Flows – The Power and Beauty of Asymptotic Methods

Coordinator: Bernhard Scheichl (Wien, A)

June 5 - 9

Nonlinear Electro- and Magneto-Mechanics: Theory, Computations, and Experiments

Coordinators: Prashant Saxena (Glasgow, UK), Paul Steinmann (Erlangen, D)

June 12 - 16

Wave Motion in Heterogeneous Media: Analysis, Modeling and Design

Coordinators: Bojan Guzina (Minneapolis, USA), Bruno Lombard (Marseille, F)

June 19 - 23

Liquid Interfaces, Drops and Sprays (LIDESP)

Coordinators: Alidad Amirfazli (Toronto, Canada), Volfango Bertola (Liverpool, UK)

June 26 - 30

Physics of Granular Suspensions: Micromechanics of Geophysical Flow

Coordinators: Laurent Lacaze (Toulouse, F), Marco Mazzuoli (Genoa, I)

July 3 - 7

Machine Learning for Fluid Mechanics

Coordinators: Steven L. Brunton (Seattle, WA, USA), Bernd R. Noack (Guangdong, CN)

July 10 - 14

Variational Methods for Complex Materials and Processes

Coordinators: Klaus Hackl (Bochum, D), Dorothee Knees (Kassel, D)

July 17 - 21

Microphysics of Atmospheric Clouds

Coordinator: Daniela Tordella (Turin, I)

July 24 - 28

Morton Gurtin Session

Vehicle Dynamics, Control and Design

Coordinators: Basilio Lenzo (Padua, I), Frank Naets (Leuven, B)

September 4 - 8

Lagrangian Approaches to Multiphysics Two-Phase Flows

Coordinators: Christophe Henry (Valbonne, F), Jacek Pozorski (Gdańsk, PL)

September 11 - 15

Digital Engineering Design: How Innovations in Machine Learning Improve Design Concepts

Coordinators: Stefania Elgeti (Wien, A), Matthias Möller (Delft, NL)

September 18 - 22

Batteries - Basic Principles, Experimental Investigations and Modeling Across Scales

Coordinators: Arnulf Latz (DLR, D), Wolfgang Wall (TU Munich, D)

September 25 - 29

Landslides Mechanics: from Complex Granular Behaviour to Field-Scale Flows

Coordinators: Roland Kaitna (Wien, A), Anne Mangeney (Paris, F)

October 2 - 6

Model Order Reduction for Design, Analysis and Control of Nonlinear Vibratory Systems

Coordinators: Attilio Frangi (Milan, I), Cyril Touzé (Palaiseau, F)

October 9 - 13

Virtual Elements for Problems in Mechanics

Coordinators: Lourenco Beirão da Veiga (Milan, I), Peter Wriggers (Hannover, D)

October 16 - 20

Delays and Structures in Dynamical Systems: Modeling, Analysis and Numerical Methods

Coordinators: Dimitri Breda (Udine, I), Jianhong Wu (Toronto, CAN)

November 20 - 24