



# International Centre for Mechanical Sciences

## PROGRAMME 2024

### Paul H. Steen Session

#### **Drops, Jets and Films**

Coordinators: Cameron Tropea (Darmstadt, DE), Alexander Yarin (Chicago, IL, USA) May 6 - 10

#### **Experimental Substructuring and Transfer Path Analysis for Structural Assemblies**

Coordinators: Gregor Cepon (Ljubljana, SLO), Daniel Rixen (Munich, DE) May 13 - 17

#### **Localization and Ductile Failure: Experimental, Theoretical and Computational Aspects**

Coordinators: Ahmed Benallal (Paris, FR), Odd Sture Hopperstad (Trondheim, NO) May 20 - 24

#### **Physics of Musical Instruments Applied to Instrument Making**

Coordinators: José Antunes (Lisboa, PT), Jean-Pierre Dalmont (Le Mans, FR) May 27 - 31

#### **Hysteresis in Functional Materials: from Physical Models to Numerical Simulation**

Coordinators: Manfred Kaltenbacher (Graz, AT), Astrid Pechstein (Linz, AT) June 3 - 7

#### **Fluid Mechanics of Buildings for Energy, Health, and Well-Being**

Coordinator: Henry Burridge (London, UK) June 10 - 14

#### **Microphysics of Atmospheric Clouds**

Coordinator: Daniela Tordella (Turin, IT) June 17 - 21

#### **Bone Cell and Tissue Mechanics**

Coordinator: Gwendolen Reilly (Sheffield, UK) June 17 - 21

27th CISM-IUTAM International Summer School

#### **Multi-Field Problems Across Different Scales - Materials for the Development of Green Technologies**

Coordinators: Jörg Schröder (Essen, DE), Michele Marino (Rome, IT) June 24 - 28

#### **Variational Fracture Mechanics and Phase-Field Models**

Coordinators: Laura De Lorenzis (Zurich, CH), Corrado Maurini (Paris, FR) July 1 - 5

10th CISM-AIMETA Advanced Course

#### **Mechanics of Active and Biological Structures: from Fundamentals to Recent Results**

Coordinators: Antonio De Simone (Pisa, IT), Pedro Reis (Lausanne, CH) July 8 - 12

1st CISM-EUROMECH Advanced Course

#### **Computational Modelling of the Heart: from Fundamentals to Clinical Applications**

Coordinators: Juan Carlos del Alamo (Seattle, MA, USA), Manuel Garcia-Villalba (Wien, AT) July 8 - 12

#### **Inverse Problems for Mechanical Systems: Methods, Simulations and Experiments**

Coordinators: Alexandre Kawano (São Paulo, BR), Antonino Morassi (Udine, IT) July 15 - 19

#### **Dense Particulate Flows: From Micromechanical to Macroscopic Modeling**

Coordinators: Pascale Aussilous (Marseille, FR), Bernhard Vowinckel (Braunschweig, DE) July 22 - 26

### Gianpietro Del Piero Session

#### **Contact Mechanics in Multibody Dynamics: From Modeling to Applications**

Coordinators: Paulo Flores (Minho, PT), Christian Hesch (Siegen, DE) September 2 - 6

2nd CISM-EUROMECH Advanced Course

#### **Model Reduction and Machine Learning for Solids, Fluids and Controls**

Coordinators: George Haller (Zürich, CH), Jain Shobhit (Delft, NL) September 9 - 13

#### **Tensegrity Systems: From Biomechanics to Mechanical Metamaterials**

Coordinators: Fernando Fraternali (Salerno, IT), Julián Rimoli (Irvine, CA, USA) September 16 - 20

#### **Computational and Geometric Mechanics of Discrete and Continuum Systems**

Coordinators: Andreas Müller (Linz, AT), Zdravko Terze (Zagreb, HR) September 23 - 27

#### **Time and Rate-Dependent Damage Evolution and Fracture in Advanced Composites**

Coordinators: Tomasz Sadowski (Lublin, PL), Holm Altenbach (Magdeburg, DE) September 30 - October 4

#### **Dynamics of Human Balancing**

Coordinators: Tamás Insperger (Budapest, HU), John Milton (Austin, TX, USA) October 14 - 18

#### **Domain Decomposition and Multigrid Methods for Computational Structure Mechanics**

Coordinator: Pierre Gosselet (Lille, FR) October 21 - 25