

PROGRAMME 2018

Rectors:

E. Guazzelli (Marseille)
F.G. Rammerstorfer (Vienna)
W. A. Wall (Munich)

In 2018 the following Sessions of the International Centre for Mechanical Sciences (CISM) will take place at the seat of CISM in Udine (Italy)

The Stephen C. Cowin Session

Fluid Mechanics of Planets and Stars

April 16 - 20

Invited Lecturers:

Renaud Deguen (Lyon, France), Benjamin Favier (Marseille, France), Michael Le Bars (Marseille, France), Daniel Lecoanet (Princeton, NJ, USA), Gordon Ogilvie (Cambridge, UK), Bruce Sutherland (Edmonton, Canada).

Coordinators: M. Le Bars and D. Lecoanet

Transport Phenomena in Complex Fluids

May 7 - 11

Invited Lecturers:

Volfango Bertola (Liverpool, UK), Günter Brenn (Graz, Austria), Teodor Burghlea (Nantes, France), Marco Ellero (Swansea, UK), Roberto Piazza (Milan, Italy).

Coordinators: V. Bertola and T. Burghlea

Mechanics of Strain Gradient Materials

May 14 - 18

Invited Lecturers:

Lorenzo Bardella (Brescia, Italy), Albrecht Bertram (Magdeburg, Germany), Samuel Forest (Evry, France), Wolfgang H. Mueller (Berlin, Germany), Christian Niordson (Lyngby, Denmark), Pierre Seppecher (Toulon, France).

Coordinators: A. Bertram and S. Forest

High-performance Computing of Big Data for Turbulence and Combustion

May 21 - 25

Invited Lecturers:

Mejdi Azaïez (Bordeaux, France), Gianluca Iaccarino (Stanford, CA, USA), Sergio Pirozzoli (Rome, Italy), Thierry Poinsot (Toulouse, France), Tapan K. Sengupta (Kanpur, India), Paul G. Tucker (Cambridge, UK).

Coordinators: S. Pirozzoli and T. K. Sengupta

Modelling and Simulation of Tribological Problems in Technology

May 28 - June 1

Invited Lecturers:

Andreas Almqvist (Luleå, Sweden), James R. Barber (Ann Arbor, MI, USA), Daniele Dini (London, UK), David A. Hills (Oxford, UK), Marco Paggi (Lucca, Italy).

Coordinators: M. Paggi and D. A. Hills

Advanced Topics in MHD

June 11 - 15

Invited Lecturers:

Andrew Hillier (Exeter, UK), Elena Khomenko (Canary Islands, Spain), David MacTaggart (Glasgow, UK), Etienne Parat (Paris, France), Anthony Yeates (Durham, UK), Nobumitsu Yokoi (Tokyo, Japan).

Coordinators: A. Hillier and D. MacTaggart

Wave Turbulence and Extreme Events

June 18 - 22

Invited Lecturers:

Sergio Chibbaro (Paris, France), Gregory Falkovich (Rehovot, Israel), Christophe Josserand (Paris, France), Sergey Nazarenko (Coventry, UK), Miguel Onorato (Turin, Italy), Davide Proment (Norwich, UK), Pierre Suret (Lille, France).

Coordinators: S. Chibbaro and M. Onorato

Turbulent Mixing in Stratified Flows

June 25 - 29

Invited Lecturers:

Jean-Marc Chomaz (Paris, France), Stuart Dalziel (Cambridge, UK), Sonya Legg (Princeton, NJ, USA), Paul F. Linden (Cambridge, UK), Michel Rieutord (Toulouse, France), Chantal Staquet (Grenoble, France).

Coordinators: J-M. Chomaz and P. F. Linden

Fluid Dynamics Effects on Particle Formation in Crystallization Processes

July 2 - 6

Invited Lecturers:

Matthaus Babler (Stockholm, Sweden), Richard D. Braatz (Cambridge, MA, USA), Jos Derksen (Aberdeen, UK), Cristian Marchioli (Udine, Italy), Daniele Marchisio (Turin, Italy), Jan Sefcik (Glasgow, UK).

Coordinators: C. Marchioli and D. Marchisio

Mechanics of Fibrous Materials and Application: Physical and Modelling Aspects

July 9 - 13

Invited Lecturers:

Philippe Boisse (Lyon, France), Francesco dell'Isola (Rome, Italy), Jean-François Ganghoffer (Vandoeuvre, France), Edoardo Mazza (Zurich, Switzerland), Mohammad Mofrad (Berkeley, CA, USA), Catalin Picu (Troy, NY, USA).

Coordinators: J-F. Ganghoffer and C. Picu

Efficient High-order Discretizations for Computational Fluid Dynamics

CISM-ECCOMAS Summer School

July 16 - 20

Invited Lecturers:

Sonia Fernández-Méndez (Barcelona, Spain), Gregor Gassner (Cologne, Germany), Martin Kronbichler (Munich, Germany), Rainald Löhner (Fairfax, VA, USA), Per-Olof Persson (Berkeley, CA, USA), Stefano Rebay (Brescia, Italy).

Coordinators: M. Kronbichler and P-O. Persson

Substructuring in Engineering Dynamics: Emerging Numerical and Experimental Techniques

July 23 - 27

Invited Lecturers:

Thomas Abrahamsson (Gothenburg, Sweden), Matthew Allen (Madison, WI, USA), Randall L. Mayes (Albuquerque, NM, USA), Daniel Rixen (Munich, Germany), Paolo Tiso (Zurich, Switzerland), Maarten van der Seijs (Delft, The Netherlands).

Coordinators: M. Allen and D. Rixen

The Bruno A. Boley Session

Electromechanical Transducers: Principles and Technologies

September 3 - 7

Invited Lecturers:

Vittorio Ferrari (Brescia, Italy), Hans Irschik (Linz, Austria), Bernhard Jakoby (Linz, Austria), Reinhard Lerch (Erlangen, Germany), Pasqualina M. Sarro (Delft, The Netherlands), Michiel Vellekoop (Bremen, Germany).

Coordinators: H. Irschik and B. Jakoby

Thermodynamics of Irreversible Processes in Material Systems

September 10 - 14

Invited Lecturers:

Thomas Antretter (Leoben, Austria), Georges Cailletaud (Paris, France), Franz Dieter Fischer (Leoben, Austria), Klaus Hackl (Bochum, Germany), Ralf Mueller (Kaiserslautern, Germany), Jiri Svoboda (Brno, Czech Republic).

Coordinator: F. D. Fischer

Stability and Serviceability of Controlled Structures

September 17 - 21

Invited Lecturers:

Biswajit Basu (Dublin, Ireland), Sara Casciati (Catania, Italy), Michael Krommer (Vienna, Austria), Paul Reynolds (Exeter, UK), Marian Wiercigroch (Aberdeen, UK), Daniele Zulli (L'Aquila, Italy).

Coordinators: S. Casciati and M. Wiercigroch

Cell Mechanobiology: Theory and Experiments on the Mechanics of Life

CISM-AIMETA Advanced School

September 24 - 28

Invited Lecturers:

Carlijn Bouten (Eindhoven, The Netherlands), Vikram Deshpande (Cambridge, UK), Antonio De Simone (Trieste, Italy), Dennis E. Discher (Philadelphia, PA, USA), José Manuel Garcia-Aznar (Zaragoza, Spain), Robert M. Mcmeeking (Santa Barbara, CA, USA), Pierre Recho (Grenoble, France), Ulrich Schwarz (Heidelberg, Germany).

Coordinators: A. De Simone and V. Deshpande

Modeling in Engineering using Innovative Numerical Methods for Solids and Fluids

October 15 - 19

Invited Lecturers:

Olivier Allix (Cachan, France), Laura De Lorenzis (Braunschweig, Germany), Alexander Düster (Hamburg, Germany), Antonio Huerta (Barcelona, Spain), Hrvoje Jasak (Zagreb, Croatia), Peter Wriggers (Hannover, Germany).

Coordinators: L. De Lorenzis and A. Düster

International Advanced Professional Training

Advanced After-treatment Technologies for Automotive Applications

June 4 - 8

Invited Lecturers:

Samir Bensaid (Turin, Italy), Agustin Bueno-Lopez (Alicante, Spain), Michael Harold (Houston, TX, USA), Athanasios G. Konstandopoulos (Thessaloniki, Greece), Michiel Makkee (Delft, The Netherlands), Federico Millo (Turin, Italy), Aleksey Yezerets (Columbus, IN, USA).

Coordinators: S. Bensaid and M. Makkee

Meetings and Events

IUTAM Symposium on "Motile Cells in Complex Environments"

May 14 - 18

Coordinator: C. Marchioli (University of Udine, I)

Joint Advanced School

Marie Curie-ITN ANTARES school on "Smart Systems for Vibration Control, Energy Harvesting, Tactile Feedback, Measurement and Monitoring"

January 29 - February 1

Coordinators: M. Ghandchi Tehrani (University of Southampton, UK) and P. Gardonio (University of Udine, I)

Marie Curie-ITN school on "Damage and Failure of Materials under Extreme Conditions"

October 1 - 5

Coordinators: S. Mercier (Université de Lorraine, F) and J. Rodríguez Martínez (University Carlos III of Madrid, ES)

National Advanced Professional Training

National Advanced Professional Training (APT) in the fields of Structural and Geotechnical Engineering, Surveying, Environmental, Bioengineering and Industrial Engineering will be given in Italian.

For all activities and meetings, please refer to our website. Admission to Courses

Applications should reach CISM Secretariat no later than one month before the course. Name, degree, current address and course to be attended should be specified.

A limited number of academic participants, not supported by their own institutions, can be granted board and/or lodging upon application. Application for support must reach CISM Secretariat no later than two months before the course.

Detailed programmes, admission rules and on-line forms are available from the website.

The 2018 Course Booklet can be downloaded from www.cism.it/courses/

