UNIVERSITÀ DEGLI STUDI DELL'AQUILA

GRAN SASSO SCIENCE INSTITUTE
SCHOOL OF ADVANCED STUDIES
Scuola Universitaria Superiore

PROGRAMME



July 6th - 10th 2026

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REGIONE ABRUZZO

COMUNE DELL'AQUILA

IL SEGNO DELLA RINASCITA

L'AQUILA 2026 Capitale italiana della Cultura

DIIIE Dipartimento di Ingegneria Industriale e dell'Informazione e di Economia

8 JULY

Room1 Auditorium

09:00 Stefania Cherubini – Plenary (Chair: ***Roberto Verzicco***)
10:00 **BIFD 2028** presentation
10:15 Coffee break

SESSION: **MS: Emerging Patterns in Biological Flows** Chair: ***Rajat Mittal***
10:45 Keynote: Mattia Serra-Instabilities and flow control in living tissues
11:00 Keynote: Mattia Serra-Instabilities and flow control in living tissues
11:15 Ramiro Godoy-Diana-Confinement density drives state transitions in schooling fish
11:30 Eric Keaveny-Structural anisotropy stabilises asymmetric beating in instability riven filaments
11:45 Yves-Marie Ducimetiere-Dimensionality reduction of a multistable, stochastically driven active fluid model: a weakly nonlinear approach
12:00 Ammara Tassawar-Flow instabilities in a recorder's mouthpiece
12:15 Pier Giuseppe Ledda-Improving infusion cannulas design for safer vitreous surgery with reduced transport and biological stress
12:30 Deepak Kumar-The influence of corneal topography on tear film rupture
12:45 Lunch

14:30-18:30 EXCURSION TO L'AQUILA

20:00 BANQUET

8 JULY

Room2 Ipogea

SESSION: **MS: Metastability and Phase Change** Chair: ***Eugene Benilov***

10:45 Matteo Teodori-Nanodroplet condensation on solid surfaces
11:00 Toby Kay-Fluctuating thin films with orientable surfactants: microscopic origins, stability and rupture
11:15 Marco Bussoletti-Fluctuating hydrodynamics and rare-event techniques unveil the mesoscale physics of boiling
11:30 Mirko Gallo-Rare events in phase change dynamics
11:45 Zhengmao Lu-Scale-dependent hydrodynamic mechanisms governing nucleation stability and vapor removal in nucleate boiling
12:00 Matteo Bottacchiari-Modeling and simulation of bubble nucleation in magma
12:15 Daiman Somerville-Direct numerical simulations exploring the influence of wettability and nucleation site density on the transition to film boiling
12:30 Cristian Marchioli-Ice-water morphodynamics in turbulent shear flows
12:45 Lunch

14:30-18:30 EXCURSION TO L'AQUILA

20:00 BANQUET

8 JULY

Room3 Main lecture hall

SESSION: **Transition to Turbulence** Chair: ***Stefania Cherubini***

10:45 Ryoko Ono-Stochastic transient formation of turbulent band in channel flow
11:00 Robert Bennett-Upper edge bisection and edge state in pipe flow
11:15 Juan Cruz Gonzales Sembla-Simulation of counter-rotating spherical Couette flow between very large spheres
11:30 Ritwik Das-Competing instabilities in curved pipe flows
11:45 Arthur Viallefont-Study of the linear instability of the featureless turbulent flow
12:00 Zuoli Xiao-Modeling of high-speed laminar-turbulent transition based on field inversion and symbolic regression
12:15 Franz-Theo Schön-Seedless velocimetry of turbulent flows
12:45 Lunch

14:30-18:30 EXCURSION TO L'AQUILA

20:00 BANQUET


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