

Trends and perspectives in the analysis of PDEs

Roma (Italy) – From 16 to 20 September 2024

SCHEDULE

Monday 16 September

12.30 - 14.30 Welcome lunch (buffet at INdAM headquarters)

14.30 - 15.30 **Massimiliano Berti** (SISSA)
Stable and unstable Stokes waves

15.30 - 16.30 **Šárka Nečasová** (Czech Academy of Sciences)
On existence of weak solutions to a Baer–Nunziato type system

16.30 - 17.00 Coffee-break

17.00 - 18.00 **Gianluca Crippa** (Universität Basel)
Lack of selection for passive-scalar advection and for the forced Euler equations

Tuesday 17 September

09.00 - 10.00 **Alexander Kiselev** (Duke University)
Suppression of chemotactic blow up by active scalar

10.00 - 11.00 **Xian Liao** (Karlsruher Institute für Technologie)
Global-in-time regularity for the two-dimensional incompressible Navier-Stokes equations with freely transported viscosity coefficient

11.00 - 11.30 Coffee-break

11.30 - 12.30 **Jean-Yves Chemin** (Sorbonne Université & Université Claude Bernard Lyon 1)
About the asymptotic of fast rotating fluids in a non flat domain

12.30 - 14.30 Lunch break (buffet at INdAM headquarters)

14.30 - 15.30 **Arghir Zarnescu** (Basque Center for Applied Mathematics)
On a variational approach to the study of incompressible fluids

15.30 - 16.30 **Francesco De Anna** (Universität Würzburg)
Prandtl-type equations in boundary layers of the Beris-Edwards theory of liquid crystals

16.30 - 17.00 Coffee-break

Wednesday 18 September

09.00 - 10.00 **Eduard Feireisl** (Czech Academy of Sciences)
Incompressible limits of thermally driven compressible fluid flows under stratification

10.00 - 11.00 **Roberta Bianchini** (IAC CNR)
Hydrostatic modeling in stratified fluids: mathematical perspectives

11.00 - 11.30 Coffee-break

11.30 - 12.30 **Michele Coti Zelati** (Imperial College)
Stability and entropy maximization in the two-dimensional Euler equations

12.30 Lunch break (buffet at INdAM headquarters)

& free afternoon

Thursday 19 September

09.00 - 10.00 **Alberto Maspero** (SISSA)
One dimensional energy cascades in a fractional quasilinear NLS

10.00 - 11.00 **Francisco Gancedo** (Universidad de Sevilla)
On evolution of vortex filaments

11.00 - 11.30 Coffee-break

11.30 - 12.30 **Isabelle Gallagher** (École Normale Supérieure)
On the Cauchy problem for a class of parabolic quasilinear systems

12.30 - 14.30 Lunch break (buffet at INdAM headquarters)

14.30 - 15.30 **Diego Córdoba** (ICMAT)
Finite time blow-up for the hypodissipative Navier Stokes equations

15.30 - 16.30 **Ewelina Zatorska** (University of Warwick)
On the dissipative Aw-Rascle model

16.30 - 17.00 Coffee-break

17.00 - 18.00 **Riccardo Montalto** (Università degli Studi di Milano)
Nonlinear quasi-periodic oscillations in Fluid Mechanics

20.00 Social dinner at *Ristorante "I fratelli"*
(Via degli Umbri, 14 – 00185 Roma)

Friday 20 September

09.00 - 10.00 **Michela Procesi** (Università di Roma Tre)
KAM theory in infinite dimensions

10.00 - 11.00 **Raphaël Danchin** (Université Paris-Est Créteil)
On the large time asymptotics of global solutions to the Vlasov-Navier-Stokes equations in the whole space

11.00 - 11.30 Coffee-break

11.30 - 12.30 **Alexis Vasseur** (University of Texas at Austin)
From Navier-Stokes to discontinuous solutions of compressible Euler

12.30 Lunch (buffet at INdAM headquarters)
& end of the conference