

Advances in Mathematical Fluid Mechanics

(<http://gfm.cii.fc.ul.pt/amfm2014/index.html>)

Instituto para a Investigação Interdisciplinar da Universidade de Lisboa, Av. Prof. Gama Pinto 2,




30 June – 5 July, 2014

Programme

	Monday 30 June	Tuesday 1 July	Wednesday 2 July	Thursday 3 July	Friday 4 July	Saturday 5 July
8:50	Opening					
9:00-9:45	S. Albeverio	R. Temam	T. Ratiu	Y. Brenier	P. Markowich	
9:50-10:20	M. Marion	A. Mazzucato	G. Iyer	X. Wang	G. Planas	
Coffee Break						
10:50-11:35	A. Mahalov	Zh. Xin	V. Bogachev	M. Arnaudon	M. Sammartino	
11:40-12:10	B. Ferrario	A.L. Silvestre	D. Masoero	X. Li	N. Arada	
Lunch						
14:15-15:00	P. Constantin	D. Holm	E X C U R S I O N	F. Flandoli	S. Antontsev	
15:05-15:35	J. Su	L.T. Hoang		A. Millet	J. Videman	
Coffee Break						
16:00-16:45	H. Beirão da Veiga	C. Amrouche		A. Ibragimov	A. Sequeira	
16:50-17:20	S. Rodrigues	I. Torrecilla		R. Lassalle	I. Boussetouan	
17:25-18:05	H. Borges de Oliveira	A. Eismontaité		I. Klevtsova	N. Chemetov	
				20:00 Conference Dinner	END	




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Monday, 30 June, 2014

8:50	Opening
9:00-9:45	<i>Sergio Albeverio (University of Bonn, Germany)</i> Title. To be announced
9:50-10:20	<i>Martine Marion (Ecole Centrale de Lyon, France)</i> Global Existence For Multicomponent Reactive Flows
Coffee Break	
10:50-11:35	<i>Alex Mahalov (Arizona State University, USA)</i> Stochastic Three-Dimensional Rotating Navier-Stokes Equations: Averaging, Convergence and Regularity
11:40-12:10	<i>Benedetta Ferrario (Università di Pavia, Italy)</i> On a stochastic Leray- α model of Euler equations
Lunch	
14:15-15:00	<i>Peter Constantin (Princeton University, USA)</i> Lagrangian methods: Uniqueness and Analyticity
15:05-15:35	<i>Jianzhong Su (University of Texas at Arlington, USA)</i> Traveling finger solutions in two-fluid flows and applications
Coffee Break	
16:00-16:45	<i>Hugo Beirão da Veiga (University of Pisa, Italy)</i> Concerning the existence of classical solutions to elliptic boundary value problems
16:50-17:20	<i>Sérgio Rodrigues (Johann Radon Institute for Comput. and Applied Math., OAW, Austria)</i> Stabilization to a nonstationary solution for the equations of fluid mechanics
17:25-18:05	<i>Hermenegildo Borges de Oliveira (Universidade do Algarve, Portugal)</i> Asymptotic behavior of trembling fluids



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Tuesday, 1 July, 2014

9:00-9:45	<i>Roger Temam (Indiana University, USA)</i> Initial and boundary value problems for the equations of the climate without viscosity: primitive equations and shallow water equations
9:50-10:20	<i>Anna Mazzucato (Penn State University, U.S.A.)</i> Planar Limits of 3D Helical Flows
Coffee Break	
10:50-11:35	<i>Zhouping Xin (The Chinese University of Hong Kong)</i> On Multi-Dimensional Compressible Navier-Stokes Systems with Large Oscillations and Vacuum
11:40-12:10	<i>Ana Leonor Silvestre (Instituto Superior Técnico-Univ. de Lisboa, Portugal)</i> Steady solutions with finite kinetic energy for the Navier-Stokes equations in a three-dimensional exterior domain
Lunch	
14:15-15:00	<i>Darryl Holm (Imperial College London, UK)</i> Dynamics of Peakons, Jetlets and G-strands
15:05-15:35	<i>Luan Thach Hoang (Texas Tech University, U. S. A.)</i> On Two-Phase Forchheimer Flows of Incompressible Fluids
Coffee Break	
16:00-16:45	<i>Chérif Amrouche (Université de PAU et des Pays de l'Adour)</i> Semi-group theory for the Stokes operator with Navier-type boundary conditions on L^p -spaces
16:50-17:20	<i>Iván Torrecilla (GFM&Universidade Nova de Lisboa, Portugal)</i> On the inviscid limit for 2D incompressible stochastic Navier-Stokes equations with friction type boundary conditions
17:25-18:05	<i>Alicija Eismontaitė (Vilnius University, Lithuania)</i> On the Existence of Singular Solutions to the Stokes Problem in the Power Cusp Domains




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Wednesday, 2 July, 2014

9:00-9:45	<i>Tudor Ratiu (EPFL, Lausanne, Switzerland)</i> Liquid crystal theories
9:50-10:20	<i>Gautam Iyer (Carnegie Mellon University, USA)</i> Anomalous diffusion of tracer particles in fast cellular flows
Coffee Break	
10:50-11:35	<i>Vladimir Bogachev (Moscow State University, Russia)</i> Linear and nonlinear Fokker--Planck--Kolmogorov equations for measures on infinite-dimensional spaces
11:40-12:10	<i>Davide Masoero (GFM, Universidade de Lisboa, Portugal)</i> Universality for Scalar Nonlinear Waves
Lunch	
14:15-19:00	Excursion




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Thursday, 3 July, 2014

9:00-9:45	<i>Yann Brenier (CNRS, CMLS-Ecole Polytechnique, France)</i> Topology-preserving diffusions in Hydrodynamics
9:50-10:20	<i>Xiaoming WANG (Florida State University, USA)</i> Approximation of long time statistical properties of large dissipative chaotic dynamical systems
Coffee Break	
10:50-11:35	<i>Marc Arnaudon (IMB, Université Bordeaux I, France)</i> Generalized stochastic flows and applications to incompressible viscous fluids
11:40-12:10	<i>Xiang-Dong Li (AMSS, Chinese Academy of Sciences, China)</i> On the generalized solution of the Navier-Stokes equations via optimal transportation
Lunch	
14:15-15:00	<i>Franco Flandoli (University of Pisa, Italy)</i> Suppression of singularities by noise in simplified models of fluid mechanics
15:05-15:35	<i>Annie Millet (Université Paris I, France)</i> LDP and the zero viscosity limit for 2D NSE
Coffee Break	
16:00-16:45	<i>Akif Ibragimov (Texas Tech University, USA)</i> Qualitative properties of the non-linear flow in porous media and application in engineering
16:50-17:20	<i>Rémi Lassalle (GFM, Portugal)</i> On the least action principle for the Navier-Stokes equation
17:25-18:05	<i>Iuliia Klevtsova (S. R. Hydrometeorological Research Institute & Sobolev Institute of Math., Russia)</i> On the uniqueness of stationary measure for the stochastic system of the Lorenz model describing a baroclinic atmosphere
	Conference Dinner

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Friday, 4 July, 2014

9:00-9:45	P. Markowich (<i>University of Cambridge, England</i>) On a PDE model for the Formation of Biological Networks
9:50-10:20	Gabriela Planas (<i>Universidade Estadual de Campinas, Brazil</i>) On the non-homogeneous Navier-Stokes system with Navier friction boundary conditions
Coffee Break	
10:50-11:35	Marco Sammartino (<i>Università di Palermo, Italy</i>) Navier-Stokes equations with incompatible data in the zero viscosity limit
11:40-12:10	Nadir Arada (<i>Universidade Nova de Lisboa, Portugal</i>) Optimal control of quasi-Newtonian fluids
Lunch	
14:15-15:00	Stanislav Antontsev (<i>CMAF/University of Lisbon, Portugal</i>) Analysis of the existence for Navier-Stokes equations with anisotropic diffusion
15:05-15:35	Juha Videman (<i>Instituto Superior Técnico, University of Lisbon, Portugal</i>) Water-wave problem for a floating structure
Coffee Break	
16:00-16:45	Adélia Sequeira (<i>Instituto Superior Técnico, University of Lisbon, Portugal</i>) Recent Progress in the Mathematical Modeling of Blood Coagulation
16:50-17:20	Imane Boussetouan (<i>ICJ, Université Jean Monnet, Saint-Etienne, France</i>) Non-Isothermal Navier-Stokes System with Tresca's Friction Law: Existence, Uniqueness and Regularity Properties
17:25-18:05	Nikolai Chemetov (<i>CMAF/University of Lisbon, Portugal</i>) The motion of the rigid body in a viscous fluid with collisions
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