

**Program of the Conference**  
**“Mathematical Hydrodynamics:**  
**Euler Equations and Related Topics”**  
**(EEC-300)**

Thursday, June 7

- 08:30 -9:25 Registration of participants (at the entrance hall of the Euler Institute)
- 09:25-9:30 Opening
- 09:30-10:00 **Tomas Yizhao Hou** (Caltech, Pasadena, USA)  
*“Dynamic Depletion of Vortex Stretching and Nonlinear Stability of 3D Incompressible Flows”*
- 10:05-10:35 **Francois Golse** (Ecole Polytechnique, Palaiseau, France)  
*“Regularization by Compensated Compactness for Conservation Laws”*
- 10:40-10:55 Coffe break
- 10:55-11:25 **Sergei Kuksin** (Heriot-Watt University, Edinburgh, UK)  
*“Eulerian Limit for Randomly Forced 2D Navier-Stokes Equation”*
- 11:30-12:00 **Dongho Chae**, (Sungkyunkwan University, Suwon, Korea)  
*“On the Self-Similar Singularities for the Euler and Related Equations”*
- 12:05-13:30 Lunch
- 13:30-14:00 **Tudor Ratiu** (Ecole Polytechnique Federale de Lausanne, Switzerland)  
*“Euler Equations in Fluid Dynamics”*
- 14:05-14:35 **Roman Shvydkoy**, (University of Illinois at Chicago, USA)  
*“Onsager's Conjecture in Borderline Besov Spaces”*
- 14:40-14:55 Coffe break
- 14:55-15:25 **Ruo Li** (Peking University, Beijing, China)  
*“A Numerical Study to Kida-Pelz Type High-Symmetric Configuration”*
- 15:30-16:00 **Milton da Costa Lopes Filho** (Unicamp, Campinas, Brazil)  
*“Incompressible Flow Around a Small Obstacle”*
- 16:05-19:00 Bus excursion  
Bus excursion to the Alexander Nevskiy Lavra with visiting of Euler’s grave and general city tour. The excursion starts from and ends at the Euler Institute
- 19:00-21:00 Welcome party  
Some drinks and snacks in the hall of the Euler Institute
- ~ 21:00 Bus to the hotel “Sovetskaya”  
This bus will take participants who stay at “Sovetskaya” from the Euler Institute to their hotel

## Friday, June 8

- 09:30-10:00 **Yakov Sinai** (Princeton University, USA)  
*“Blow Ups of Complex Solutions of Some Equations of Fluid Dynamics”*
- 10:05-10:35 **Peter Constantin** (University of Chicago, USA)  
TBA
- 10:40-10:55 Coffe break
- 10:55-11:25 **Hugo Beirao da Veiga** (“U.Dini”, Pisa, Italy)  
*“On the Ladyzhenskaya-Smagorinsky Turbulence Model. The Regularity Problem”*
- 11:30-12:00 **Andrei Fursikov** (Moscow University, Russia)  
*“Unlocal Stable Invariant Manifolds for Semilinear Parabolic Equation with Quadratic Nonlinearity”*
- 12:05-13:30 Lunch
- 13:30-14:00 **Russell Caflisch** (University of California at Los Angeles, USA)  
*“Complex Singularities for Inviscid Incompressible Flow”*
- 14:05-14:35 **Stamatios Dostoglou** (University of Missouri, USA)  
*“The Correlation of Statistical Solutions of the Hydrodynamic Equations”*
- 14:40-14:55 Coffe break
- 14:55-15:25 **Olivier Glass** (Universite Paris 6, France)  
*“On the Controllability of the Isentropic Euler Equation”*
- 15:30-16:00 **Viktor Starovoitov** (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia)  
*“Singular Solutions of the Euler Equations”*
- 16:05-16:20 **Walter Rusin** (University of Minnesota, School of Mathematics, USA)  
*“Zygmund Spaces, Inviscid Limits and Uniqueness of Euler Flows”*
- 16:20-16:35 **Nikolai Chemetov** (CMAF, Universidade de Lisboa, Portugal)  
*“Euler Equations with Non-Homogeneous Navier Slip Boundary Conditions”*
- 16:35-17:30 Coffe break  
Coffe break on occasion of V.A. Solonnikov birthday. Some drinks and snacks.
- 17:30-19:00 Boat trip  
A boat trip along St. Petersburg rivers and canals with the excursion. In the saloon some drinks are arranged. The boat departs from the landing place near the Euler Institute and arrives at the landing place near the Steklov Institute (Fontanka 27)
- 19:00 - ... Free time  
Restaurants, “white nights” and other St.-Petersburg entertainments are available

## Saturday, June 9

- 09:30-10:00 **Basil Nicolaenko** (Arizona State University, USA)  
*“Bursting Dynamics and Nonlinearity Depletion for the 3D Euler Equations”*
- 10:05-10:35 **Alex Mahalov** (Arizona State University)  
*“3D Euler Equations in Cylindrical Domains with Uniformly Large Initial Vorticity”*
- 10:40-10:55 Coffe break
- 10:55-11:25 **Matthias Hieber** (Technical University of Darmstadt, Germany)  
*“L<sub>2</sub>- Stability of the Ekman Spiral and the Eqautions of Navier-Stokes in the Rotational Framework”*
- 11:30-12:00 **Okihiro Sawada** (Hokkaido University, Sapporo, Japan)  
*“On the Linearized Problem of the Spin-Coating-Process”*
- 12:05-13:30 Lunch
- 13:30-14:00 **Yoshihiro Shibata** (Waseda University, Tokyo, Japan)  
*“Some Stability Theorem for Navier-Stokes Flow Past a Rotating Body”*
- 14:05-14:35 **Maria Schonbek** (University of California Santa Cruz, USA)  
*“Decay of PolymerEequations and Poincare Estimates”*
- 14:40-14:55 Coffe break
- 14:55-15:25 **Eduard Feireisl** (Institute of Mathematics AVCR, Praha, Czech Republic)  
*“Asymptotic Analysis of Equations Describing the Dynamics of Compressible Viscous Fluids”*
- 15:30-16:00 **Edriss S. Titi** (Weizmann Institute of Science, Israel)  
*“Global Regularity of Certain Geophysical Models”*
- 16:05-16:20 **Yana Belopolskaya** (SPb University for Architecture and Civil Engineering)  
*“Probabilistic Approaches to the Solution of the Navier-Stokes System”*
- 16:20-16:35 **German Maksimov** (Moscow Engineering Physics Institute)  
*“On Variational Principle in Dissipative Hydrodynamics of the Hydrodynamic Equations”*
- 16:35-17:05 **Paolo Secchi** (University of Brescia, Italy)  
TBA
- 17:10-17:15 Closing