

Monday, August 22

18:00–20:00	Welcome reception and registration Technopark of Novosibirsk Akademgorodok, Nikolaeva street, 11, 13 th floor
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Tuesday, August 23**NSU, Lecture hall 4110**

9:00–9:10	Opening ceremony
9:10–9:40	Denis SERRE (Ecole Normale Supérieure de Lyon, Lyon, France) <i>Global/entire smooth solutions of the Euler system of a compressible fluid</i>
9:40–10:05	Vladislav V. PUKHNACHEV (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Symmetric solutions of the Leray problem</i>
10:05–10:30	Mikhail V. KOROBKOV (Sobolev Institute of Mathematics, Novosibirsk, Russia) <i>On the Morse–Sard theorem for the sharp case of Sobolev mappings and applications in fluid mechanics</i>
10:30–11:00 Coffee-break	
11:00–11:30	Vladimir E. ZAKHAROV (Novosibirsk State University, Novosibirsk, Russia) <i>Are equations of deep fluid with free surface integrable?</i>
11:30–11:55	Alexander G. PETROV (Institute for problem in Mechanics, Moscow, Russia) <i>About the stability of capillary waves</i>
11:55–12:20	Evgenii A. KARABUT (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Semi-analytical investigation of unsteady free-boundary flows</i>
12:20–12:45	Anastasia A. MESTNIKOVA (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Solvability of the problem of a free surface potential flow of an ideal fluid caused by a singular sink</i>
12:45–15:00 Lunch	
15:00–16:30	Gennady A. EL (Loughborough University, Loughborough, UK) <i>Shock waves in dispersive hydrodynamics</i>
16:30–17:00 Coffee-break	
17:00–17:30	Stanislav N. ANTONTSEV (University of Lisbon, Lisbon, Portugal) <i>Kelvin–Voight equations with p-laplacian: existence, uniqueness, asymptotic behaviour and blow up</i>
17:30–17:55	Anna G. PETROVA (Rubtsovsk branch of Altai State University, Rubtsovsk, Russia) <i>On the characteristics for 3D system of equations for incompressible viscoelastic Maxwell medium</i>
17:55–18:20	Victoria B. BEKEZHANOVA (Institute of Computational Modelling, Krasnoyarsk, Russia) <i>The spectrum of perturbations of the two-layer flow with evaporation</i>

Wednesday, August 24**NSU, Lecture hall 4110**

9:00–9:30	Pavel I. PLOTNIKOV (Novosibirsk State University, Novosibirsk, Russia) <i>Rotationally invariant viscous gas flow</i>
9:30–9:55	Raphael DANCHIN (Université Paris-Est Créteil, Créteil, France) <i>Optimal time-decay estimates for the compressible Navier–Stokes equations in the critical regularity framework</i>

9:55–10:20	Alexander E. MAMONTOV (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Solvability of non-stationary equation multi-component viscous compressible fluids</i>
10:20–10:45	Ivan V. KUZNETSOV (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Existence of entropy measure-valued solutions for forward-backward p-parabolic equations</i>
10:45–11:15 Coffee-break	
11:15–11:45	Mark HOEFER (University of Colorado, Boulder, USA) <i>Non-convex/non-classical dispersive hydrodynamics</i>
11:45–12:10	Gennady A. EL (Loughborough University, Loughborough, UK) <i>Expansion shock waves in regularised shallow water theory</i>
12:10–12:35	Andrey B. MORGULIS (Southern Federal University and South Mathematical Institute, Rostov-on-Don, Russia) <i>Spectra and stability of the incompressible open flows</i>
12:35–13:00	Kseniya A. IVANOVA (Aix-Marseille University, Marseille, France) <i>Formation and coarsening of roll waves in shear flows down an inclined rectangular channel</i>
13:00–15:00 Lunch	
15:00–16:30	Denis SERRE (Ecole Normale Supérieure de Lyon, Lyon, France) <i>The singularity of inviscid isentropic flows at the vacuum boundary. The multi-dimensional Riemann problem for gas dynamics</i>
16:30–17:00 Coffee-break	
17:00–17:30	Sylvie BENZONI-GAVAGE (Université Claude Bernard Lyon 1 / Institut Camille Jordan, Villeurbanne, France) <i>On modulated equations for Hamiltonian PDEs</i>
17:30–17:55	Anna P. CHUGAINOVA (Steklov Mathematical Institute, Moscow, Russia) <i>Stability of stationary solutions of the generalized KdV-Burgers equation</i>
17:55–18:20	Frederic CHARDARD (Institut Camille Jordan / Université Jean Monnet, Saint-Etienne, France) <i>Modulational stability of periodic waves of the Kawahara equation</i>

Thursday, August 25
NSU, Lecture hall 4110

9:00–9:30	Gennady V. ALEKSEEV (Institute of Applied Mathematics, Vladivostok, Russia) <i>Optimization method in 3D invisibility cloaking problems</i>
9:30–9:55	Roman V. BRIZITSKII (Institute of Applied Mathematics, Vladivostok, Russia) <i>Analysis of control problems for the stationary magneto-hydrodynamics equations under mixed boundary conditions</i>
9:55–10:20	Olga N. GONCHAROVA (Altai State University, Barnaul, Russia) <i>Mathematical modeling of the 3D two-layer fluid flows with evaporation on the basis of an exact solution of the convection equations</i>
10:20–10:45	Aleksandr L. KAZAKOV (Matrosov Institute for System Dynamics and Control Theory, Irkutsk, Russia) <i>Certain exact solutions for the porous medium equations</i>
10:45–11:15 Coffee-break	

11:15–11:45	Sergey L. GAVRILYUK (Aix-Marseille University, Marseille, France) <i>Toward a universal model of breaking waves on shallow water</i>
11:45–12:10	Alexander A. CHESNOKOV (Novosibirsk State University, Novosibirsk, Russia) <i>Mathematical models of mixing layers and turbulent bores in shallow shear flows</i>
12:10–12:35	Vladimir V. OSTAPENKO (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Generalized concept of long-wave approximation applicable for modelling wave flows with hydraulic bores</i>
12:35–13:00	Irina V. STEPANOVA (Institute of Computational Modelling, Krasnoyarsk, Russia) <i>Structure of roll waves in two-layer fluid</i>
14:30 (NSU) – 17:30	Excursion: Walking tour of Akademgorodok with a visit to the Central Siberian Botanical Garden
18:30–21:30	Conference dinner Technopark of Novosibirsk Akademgorodok, Nikolaeva street, 11, 13 th floor

Friday, August 26, NSU, Lecture hall 4110

9:00–9:30	Bruno VOISIN (University of Grenoble, Grenoble, France) <i>A linear approach of internal wave focusing</i>
9:30–9:55	Evgeny V. ERMANYUK (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Linear and nonlinear dynamics of internal wave attractors</i>
9:55–10:20	Izolda V. STUROVA (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Effect of periodic external pressure on inhomogeneous ice cover</i>
10:20–10:45	Vasily K. KOSTIKOV (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Unsteady free surface flow over a moving obstacle</i>
10:45–11:15 Coffee-break	
11:15–11:45	Sergey V. GOLOVIN (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Mathematical problems in modelling of hydraulic fracturing</i>
11:45–12:10	Alexey N. BAIKIN (Novosibirsk State University, Novosibirsk, Russia) <i>Hydraulic fracture propagation in inhomogeneous poroelastic medium</i>
12:10–12:35	Svetlana TOKAREVA (University of Zurich, Zurich, Switzerland) <i>Staggered grid residual distribution scheme for Lagrangian hydrodynamics</i>
12:35–13:00	Alexander K. KHE (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Mathematical tools for cerebral hemodynamics</i>
12:50–15:00 Lunch	
15:00–16:30	Sergey L. GAVRILYUK (Aix-Marseille University, Marseille, France) <i>What are the best evolution variables in the problem of long wave propagation in one and two layer flows with a free surface?</i>
16:30–17:00 Coffee-break	
17:00–17:30	Vladimir V. SHELUKHIN (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Equations of steady flows of the Cosserat-Bingham fluid</i>
17:30–17:55	Vladimir G. DANILOV (National Research University Higher School of Economics, Moscow, Russia) <i>Double-deck structures of boundary layers in flows</i>
17:55–18:20	Pavel V. KOVTUNENKO (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russia) <i>Mixing layer evolution for a viscous Hele-Shaw flow</i>