

**The last 60 years of Mathematical Fluid Mechanics:  
Longstanding Problems and New Perspectives  
In Honor of Professors Robert Finn and Vsevolod Solonnikov**

*21-25 August, 2017 | Vilnius, Lithuania*

**Conference Programme**

Monday, August 21	
08:30 - 09:15	Registration
09:15 - 09:30	Opening of the Conference
09:30 - 10:25	<b>H. Amann:</b> Nonlinear parabolic equations on Riemannian manifolds
10:25 - 11:20	<b>K. Lancaster:</b> The Behavior of Capillary Surfaces along Edges
11:20 - 11:50	Coffee break
11:50 - 12:15	<b>A. Fursikov:</b> Parabolic Equation of Normal Type Connected with 3D Helmholtz System and Its Nonlocal Stabilization
12:15 - 12:40	<b>M. Murata, Y. Shibata:</b> Decay estimates of solutions for the Navier-Stokes-Korteweg system in $\mathbb{R}^N$
12:40 - 13:05	<b>R. Farwig, C. Qian:</b> The global attractor for autonomous quasi-geostrophic equations with fractional dissipation in $\mathbb{R}^2$
13:05 - 15:00	Lunch
15:00 - 15:55	<b>T.I. Vogel:</b> Stability of Delaunay Surface Solutions to Capillary Problems
15:55 - 16:20	<b>R. Rautmann:</b> Stable mild Navier-Stokes solutions
16:20 - 16:50	Coffee break
16:50 - 17:15	<b>M. Kyed, T. Hishida:</b> Steady flow around a two-dimensional rotating body
17:15 - 17:40	<b>I. Mogilevski:</b> A numerical approach to the second boundary value problem for the curvature operator
Tuesday, August 22	
09:00 - 09:30	Registration
09:30 - 10:25	<b>V.V. Pukhnachev:</b> Nonlinear waves in the Maxwell continuum
10:25 - 11:20	<b>S. Brendle:</b> Singularity formation in geometric flows
11:20 - 11:50	Coffee Break
11:50 - 12:15	<b>I. Denisova, V. Solonnikov:</b> $L_2$ -theory for two incompressible fluids separated by a free interface
12:15 - 12:40	<b>E. Frolova:</b> Free boundary problem of magnetohydrodynamics for two liquids
12:40 - 13:05	<b>T. Makino:</b> Mathematical Study on Gaseous Stars
13:05 - 15:00	Lunch
15:00 - 15:55	<b>A. Meirmanov:</b> The Muskat problem and related topics
15:55 - 16:20	<b>M. A. Vivaldi:</b> Quasilinear obstacle problems in bad domains
16:20 - 16:50	Coffee break
16:50 - 17:15	<b>A. Petrova, O. Frolovskaya:</b> Study of unsteady flow near a critical point
17:15 - 17:40	<b>A. Tani:</b> Mathematical justification of basic equations of nonlinear acoustics
17:40 - 18:05	<b>Š. Nečasova:</b> Application of the relative entropy inequality in moving domains

<b>Wednesday, August 23</b>	
09:00 – 09:30	Registration
09:30 - 10:25	<b>J. McCuan, A. Novick-Cohen:</b> Pseudo-equilibrium grain boundaries
10:25 - 11:20	<b>J. F. Rodrigues:</b> General Inverse Problems with Linear Functional Constraints and Some Applications
11:20 - 11:50	Coffee break
11:50 - 12:15	<b>F. Sauvigny:</b> Solution of boundary value problems for surfaces of prescribed mean curvature $H(x, y; z)$ via the continuity method
12:15 - 12:40	<b>C. Förster, L. Székelyhidi Jr:</b> Piecewise constant subsolutions for the incompressible Porous Media Equation
12:40 - 13:05	<b>R. Neel:</b> Martingales and mean curvature
13:05 - 15:00	Lunch
15:00 - 15:25	<b>H. Chen, D. Siegel:</b> A Floating Cylinder or Ball on An Unbounded Reservoir
15:25 - 15:50	<b>R. Treinen:</b> On the classification and asymptotic behavior of the symmetric capillary surfaces
15:50 - 16:15	<b>R. Bhatnagar, R. Finn:</b> On the Laplace Parallel Plates Problem
17:00	Guided tour to the town of Vilnius
<b>Thursday, August 24</b>	
09:00 – 09:30	Registration
09:30 - 10:25	<b>P. Maremonti, T. Hishida:</b> Navier-Stokes flow past a rigid body: attainability of steady solutions as limits of unsteady weak solutions, starting and landing cases
10:25 - 11:20	<b>D. Siegel:</b> Asymptotic Problems in Capillarity
11:20 - 11:50	Coffee break
11:50 - 12:15	<b>T. Nishida, Y. Kagei:</b> Instability of compressible Poiseuille flow and traveling waves
12:15 - 12:40	<b>Z. Skalak:</b> A regularity criterion for the Navier-Stokes equations in terms of one item of the velocity gradient
12:40 - 13:05	<b>T. Hishida:</b> Large time behavior of a generalized Oseen evolution operator, with applications to the Navier-Stokes flow past a rotating obstacle
13:05 - 15:00	Lunch
15:00 - 15:25	<b>M. Korobkov:</b> On steady Navier-Stokes equations in 2D exterior domains
15:25 - 15:50	<b>J. Neustupa:</b> On the structure of the set of stationary solutions to the equations of motion of a class of generalized Newtonian fluids
15:50 - 16:15	<b>P. Kučera:</b> Some properties of solutions of the Navier-Stokes Equations with various types of boundary conditions
19:00	Conference Dinner
<b>Friday, August 25</b>	
09:30 - 09:55	<b>A. Nazarov:</b> Qualitative properties of solutions to elliptic and parabolic equations with divergence-free lower-order coefficients
09:55 - 10:20	<b>M. Specovius-Neugebauer, D. Bartocha:</b> Some remarks about the Helmholtz-decomposition in domains with boundary singularities
10:20 - 10:55	<b>A. Chugainova:</b> Uniqueness of self-similar solutions obeying the problems of arbitrary discontinuity disintegration for the generalized Hopf equation

10:55 - 11:20	<b><i>M. Koiso:</i></b> Non-uniqueness of closed non-smooth hypersurfaces with constant anisotropic mean curvature and self-shrinkers of anisotropic mean curvature flow
11:20 - 11:50	Coffee break
11:50 - 12:15	<b><i>Fei-tsen Liang:</i></b> Boundary Behavior of a Capillary Surface with Extremal Contact Angle
12:15 - 12:40	<b><i>L. Rivkind:</i></b> To be announced
12:45	Closing