

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

Wednesday, August 23	
09:30 - 10:25	J. McCuan, A. Novick-Cohen: Pseudo-equilibrium grain boundaries
10:25 - 11:20	J. F. Rodrigues: General Inverse Problems with Linear Functional Constraints and Some Applications
11:20 - 11:50	Coffee break
11:50 - 12:15	F. Sauvigny: Solution of boundary value problems for surfaces of prescribed mean curvature $H(x; y; z)$ via the continuity method
12:15 - 12:40	C. Förster, L. Székelyhidi Jr: Piecewise constant subsolutions for the incompressible Porous Media Equation
12:40 - 13:05	R. Neel: Martingales and mean curvature
13:05 - 15:00	Lunch
15:00 - 15:25	H. Chen, D. Siegel: A Floating Cylinder or Ball on An Unbounded Reservoir
15:25 - 15:50	R. Treinen: On the classification and asymptotic behavior of the symmetric capillary surfaces
15:50 - 16:15	R. Bhatnagar, R. Finn: On the Laplace Parallel Plates Problem
17:00	Guided tour to the town of Vilnius
Thursday, August 24	
09:30 - 10:25	P. Maremonti, T. Hishida: 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	D. Siegel: Asymptotic Problems in Capillarity
11:20 - 11:50	Coffee break
11:50 - 12:15	T. Nishida, Y. Kagei: Instability of compressible Poiseuille flow and traveling waves
12:15 - 12:40	Z. Skalak: A regularity criterion for the Navier-Stokes equations in terms of one item of the velocity gradient
12:40 - 13:05	T. Hishida: 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	M. Korobkov: On steady Navier-Stokes equations in 2D exterior domains
15:25 - 15:50	J. Neustupa: 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	P. Kučera: Some properties of solutions of the Navier-Stokes Equations with various types of boundary conditions
19:00	Conference Dinner
Friday, August 25	
09:30 - 09:55	A. Nazarov: Qualitative properties of solutions to elliptic and parabolic equations with divergence-free lower-order coefficients
09:55 - 10:20	M. Specovius-Neugebauer, D. Bartocha: Some remarks about the Helmholtz-decomposition in domains with boundary singularities
10:20 - 10:55	A. Chugainova: Uniqueness of self-similar solutions obeying the problems of arbitrary discontinuity disintegration for the generalized Hopf equation
10:55 - 11:20	M. Koiso: 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	<i>Fei-Tsen Liang:</i> Boundary Behavior of a Capillary Surface with Extremal Contact Angle
12:15 - 12:40	<i>L. Rivkind:</i> To be announced
12:45	Closing