

WORKSHOP PROGRAM ON NUMERICAL MATHEMATICS

on the occasion of the milestone anniversary of

prof. RNDr. Jaroslav Haslinger, DrSc.



MOTTO

Find $\alpha^ \in U_{ad}$ such that $J(\alpha^*) \leq J(\alpha)$ for every $\alpha \in U_{ad}$.*

April 9-10, 2026


**Institute of Geonics, Czech Academy of Sciences
Studentská 1768/9, Ostrava-Poruba, Czech Republic**


Thursday, April 9, 2026

11:00 – 14:00 Registration at Institute of Geonics, CAS

11:15 – 12:45 T. Kozubek: Guided visit to Supercomputing Center IT4Innovations
(starting at registration desk)

12:00 – 13:45 Lunch in VSB-TUO Canteen, Studentská 2171/3
(payment at registration desk, via QR code or by cash)

14:00 – 14:30 Opening – Laudatio (live stream )

Chair: M. Tůma (live stream )


14:30 – 14:50 Raino Makinen: Shape Optimization for Navier-Stokes Flow with Threshold
Boundary Conditions: A Computational Study

14:50 – 15:10 Mircea Sofonea: A Viscoplastic Frictional Contact Problem

15:10 – 15:30 Yves Renard: On the Approximation of Dynamic Contact Problems

15:30 – 15:50 Jiří Outrata: On the Application of SCD Mappings in Variational Analysis

Coffee Break and Workshop photo

Chair: M. Čermák (live stream )

16:20 – 16:40 Michal Křížek: Simplicial Partitions with Applications to the Finite Element Method

16:40 – 17:00 Vít Dolejší: Adaptive Domain Decomposition Techniques for Time-Dependent PDEs

17:00 – 17:20 Georgios Stavroulakis: Physics Informed Neural Networks for Elasticity Including
Contact (*on-line*)

17:20 – 17:40 Šárka Nečasová: On the Problem of the Primitive Equations: Rigorous Derivation
and Onsager Conjecture (*on-line*)

17:40 – 18:00 Akhtar Khan: Inertial Stochastic Approximation for Variational Inequalities (*on-line*)

18:30 Social Dinner in VSB-TUO Canteen Lounge, Studentská 2171/3

Friday, April 10, 2026

(No registration on Friday)

Chair: D. Lukáš

09:00 – 09:20 Václav Kučera: Degenerate Finite Elements: Turning a Bug into a Feature

09:20 – 09:40 Jaroslav Kruis: Numerical Simulation of Heat Transfer in Deep Geological Repositories for Nuclear Waste

09:40 – 10:00 Jan Stebel: Contact Problem in Rock Hydro-Mechanics

10:00 – 10:20 Petr Beremlijski: Shape Optimization Problems in Contact and Fluid Problems

Coffee Break

Chair: J. Kruis

10:50 – 11:10 Horymír Netuka: Almost Everything We Found Out about the Gao Beam

11:10 – 11:30 Tomáš Kozubek: From HPC to Quantum and AI Factories at IT4Innovations

11:30 – 11:50 Radek Kučera: Navier–Stokes Systems with Stick–Slip Boundary Conditions: An Algorithm Based on the Semi-Smooth Newton Method

11:50 – 12:10 Stanislav Sysala: Limit Analysis in Perfect Plasticity and Other Applications

12:10 – 12:30 Closing of Workshop

12:45 – 14:00 Lunch in VSB-TUO Canteen, Studentská 2171/3

(payment at registration desk, via QR code or by cash)