

**PROGRAM of the 11th Workshop on Analysis and Advanced Numerical Methods for Partial
Differential Equations (not only) for Junior Scientists (AANMPDE 11)**

Day 1. August 6, 2018

- 13⁰⁰ – 14⁰⁰ Registration and lunch
- 14⁰⁰ – 14⁴⁵ Ulrich Langer – *Parallel Multipatch Space-Time IGA Solvers for Parabolic Initial-Boundary Value Problems*
14⁴⁵ – 15³⁰ Jan Valdman – *Computational Modeling of Shape Memory Materials*
15³⁰ – 16⁰⁰ Monika Wolfmayr – *A Fast Fourier transform Based Direct Solver for the Helmholtz Problem*
- 16⁰⁰ – 16³⁰ Coffee break
- 16³⁰ – 17³⁰ **Dirk Praetorius (key-note lecture) – *Adaptive Boundary Element Methods***
17³⁰ – 18³⁰ Discussions
- 18³⁰ – 19³⁰ Dinner
19³⁰– Sauna and discussions

Day 2. August 7, 2018

- 09³⁰ – 10³⁰ Breakfast
- 10³⁰ – 11⁰⁰ Helene Ranetbauer – *Asymptotic Gradient Flow Structures in Interacting Particle Systems*
11³⁰ – 11³⁰ Daniel Jodlbauer – *Fracture Propagation*
11³⁰ – 12¹⁵ Rainer Picard – *Some Electromagnetic Wave Propagation Models for Moving Media*
- 13⁰⁰ – 14⁰⁰ Lunch
- 14⁰⁰ – 14⁴⁵ Sascha Trostorff – *Admissible Initial Values and Histories for a Class of Evolutionary Equations*
14⁴⁵ – 15³⁰ Sebastian Franz – *Numerical Treatment of Evolutionary Systems (Generalised Friedrichs Systems)*
15³⁰ – 16⁰⁰ Andreas Schafelner – *Space-time Finite Element Methods for Parabolic Evolution Problems with Variable Coefficients*
- 16⁰⁰ – 16³⁰ Coffee break
- 16³⁰ – 17³⁰ **Martin Kružík (key-note lecture) – *Mathematical Elasticity - When Calculus of Variations Meets Mechanics***
17³⁰ – 18³⁰ Discussions
- 18³⁰ – 19³⁰ Dinner
19³⁰– Sauna and discussions

Day 3. August 8, 2018

- 09³⁰ – 10³⁰ Breakfast
- 10³⁰ – 11⁰⁰ Oliver Leingang – *A Poisson-Maxwell-Stefan Model for Isobaric Isothermal Electrically Charged Mixtures*
11³⁰ – 11³⁰ Stephanie Thomas – *Optimal Control of Dissipative Solids via Vanishing Viscosity*
11³⁰ – 12¹⁵ Marcus Waurick – *Homogenisation of Maxwell's Equations revisited*
- 13⁰⁰ – 14⁰⁰ Lunch
- 14⁰⁰ – 14⁴⁵ Martin Berggren – *Modeling the Effects of Acoustic Visco-Thermal Boundary Layers as a Wentzell Boundary Condition*
14⁴⁵ – 15³⁰ Stanislav Sysala – *Reliable Computation in Geotechnical Stability Analysis*
15³⁰ – 16⁰⁰ Igor Voulis – *A Time Dependent Stokes Interface Problem: Well-posedness and Space-time FEM Discretization*
- 16⁰⁰ – 16³⁰ Coffee break
- 16³⁰ – 17⁰⁰ Linus Hägg – *On the Well-posedness of Galbrun's Equation*
17⁰⁰ – 17³⁰ Bernhard Endtmayer – *On the Dual Weighted Residual Method for Multiple Goal Functionals Applied to Nonlinear Problems*
- 17³⁰ – 18³⁰ Discussions
- 18³⁰ – 19³⁰ Dinner
19³⁰– Sauna and discussions

Day 4. August 9, 2018

- 09³⁰ – 10³⁰ Breakfast
- 10³⁰ – 11⁰⁰ Mark Dostálík – *Nonlinear Stability of Steady Flow of Giesekus Viscoelastic Fluid*
- 11³⁰ – 11³⁰ Svetoslav Nakov – *Reliable Adaptive Method for Electrostatic Computations in Biomolecular Systems Governed by the Poisson-Boltzmann Equation*
- 11³⁰ – 12¹⁵ Lauri Kettunen – *On the gap between treatment of boundary value problems in classical and modern physics*
- 13⁰⁰ – 14⁰⁰ Lunch
- 14⁰⁰ – 14⁴⁵ **Stefan Kurz (special lecture from industry)** – *Div Grad Curl Are Dead - Are They?*
- 14⁴⁵ – 15¹⁵ Daniel Sebastian – *Functional-type A Posteriori Error Estimates for Boundary Element Methods: A 2D Toy-Project*
- 15¹⁵ – 16⁰⁰ Coffee break
- 16⁰⁰ – 16⁴⁵ **Olli Mali (special lecture from industry)** – *Advanced Analytics in Intelligent 24/7 KONE Connected Services*
- 16⁴⁵ – 17¹⁵ Svetlana Matculevich – *Adaptive Space-Time Isogeometric Analysis of Parabolic Evolution Problems*
- 17¹⁵ – 17⁴⁵ Maksim Frolov – *Implementation of Functional-type A Posteriori Error Estimates for Linear Problems in Solid Mechanics*
- 17⁴⁵ – 18³⁰ Discussions
- 18³⁰ – 19³⁰ Dinner
- 19³⁰ – Sauna and discussions

Day 5. August 10, 2018

- 09³⁰ – 10³⁰ Breakfast
- 10³⁰ – 11³⁰ **Oliver Rheinbach (key-note lecture)** – *Solving Multiscale Problems with Million-way Concurrency*
- 11³⁰ – 12⁰⁰ Closing and packing
- 12⁰⁰ – Lunch and departure