

**1st Workshop of the Research Group on
"Applied Mathematics with Emphasis on Optimization"
Faculty of Mathematics
University of Vienna**

19.2. - 21.2.2020, Berghotel Tulbinger Kogel: Mauerbach

Organizer: **Radu Ioan Boț**

Financial support: **FWF, project I 2419-N32**

Schedule

Wednesday, February 19

16:00 - 16:30 Welcome

16:30 - 17:00 Robert Csetnek: Tikhonov regularization of a second order dynamical system with Hessian driven damping

17:00 - 17:30 Adrian Viorel: Splitting, FISTA-like algorithms and time scaling for composite optimization

17:30 - 18:00 Michael Sedlmayer: Relaxed Inertial Forward-Backward-Forward Algorithm with Application in GANs

18:00 - Dinner

Thursday, February 20

9:30 - 10:00 Jean-Jacques Strodiot: Explicit Extragradient Algorithms for Solving Variational Inequality Problems in a Real Hilbert Space

10:00 - 10:30 Matus Benko: On implicit multipliers in optimization theory

10:30 - 11:00 Dennis Meier: Inducing strong convergence into the asymptotic behaviour of full splitting algorithms

11:00 - 11:30 Coffee break

11:30 - 12:00 Josef Hofbauer: How to find saddle points of zero-sum games using dynamics

12:00 - 12:30 Axel Böhm: Total Variation regularization, but weakly convex

12:30 - 15:00 Lunch

15:00 - 15:30 Yura Malitsky: Adaptive gradient descent without descent

15:30 - 16:00 Szilárd László: Abstract convergence theorems for non-convex inertial algorithms

16:00 - 16:30 Sandy Bitterlich: A Primal-Dual Dynamical Approach to Two-Block Separable Convex Optimization Problems with Linear Constraints

16:30 - 17:00 Coffee break

17:00 - 17:30 Sebastian Banert: Machine learning strategies for convex optimisation and monotone inclusions

17:30 - 18:00 Tu Phan Vuong: Dynamical system approaches for solving variational inequalities

18:00 - 18:30 Sorin-Mihai Grad: An extension of proximal point algorithms beyond convexity

18:30 - Dinner

Friday, February 21

9:30 - 10:00 Silvia Villa: Regularization properties of inertial algorithms

10:00 - 10:30 Laura Kanzler: A forward-backward dynamical approach for nonsmooth problems with block structure coupled by a smooth function

10:30 - 11:00 Teresa Scarinci: Stochastic Proximal Gradient Methods for Nonconvex Problems in Hilbert Spaces and applications to PDE-constrained optimization with uncertainty

11:00 - 11:30 Coffee break

11:30 - 12:00 Hermann Schichl: To be announced

12:00 - 12:30 Dang-Khoa Nguyen: Factorization of Completely Positive Matrices via Proximal-Gradient Algorithm

12:30 - 13:30: Closing + Lunch