



Vienna-Budapest Workshop on Optimization Vienna, January 15-17, 2025

Organizers: Radu Bot (University of Vienna), Tibor Illés (Corvinus University of Budapest)

Wednesday, January 15, 2025 – University of Vienna, Faculty of Mathematics, BZ 02

09:55 Opening

<u>10:00 – 10:40</u> Marianna Eisenberg-Nagy (Corvinus University of Budapest): *Matrix classes and linear complementarity problems*

<u>10:40 – 11:20</u> **Tibor Illés** (Corvinus University of Budapest): *Parabolic target space approach for weighted monotone linear complementarity problems*

<u>11:20 – 11:40</u> Coffee break

<u>11:40 – 12:20</u> **Robert Csetnek** (University of Vienna): *Tikhonov regularization for monotone operators: dynamics*

<u>12:20 – 13:00</u> **David Hulett (University of Vienna)**: *Su-Boyd-Candès and Heavy Ball systems are equivalent up to time rescaling*

Thursday, January 16, 2025 – University of Vienna, Faculty of Mathematics, BZ 02

<u>13:30 – 14:10</u> Enis Chenchene (University of Vienna): Extra-Gradient method with flexible anchoring: strong convergence and fast residual decay

<u>14:10 – 14:50</u> **Petra Renáta Rigó** (Corvinus University of Budapest): *Parabolic target following framework for linear optimization*

14:50 - 15:00 Coffee break

15:00 – 15:50 (jointly with Vienna Seminar on Optimization) Yurii Nesterov (Corvinus University of Budapest): Superlinear convergence for interior-point methods in parabolic target space 15:50 – 16:30 Rossen Nenov (University of Vienna): Differentiable regularization of the condition number of a matrix

Friday, January 17, 2025 – University of Vienna, Faculty of Mathematics, BZ 02

<u>10:00 – 10:40</u> **Roland Török** (Corvinus University of Budapest): *Implementation of interior-point algorithms using the algebraic equivalent transformation technique*

10:40 – 11:20 Markus Gabl (University of Vienna): Finding quadratic underestimators for optimal value functions of nonconvex all-quadratic problems via copositive optimization

11:20 – 11:40 **Coffee break**

<u>11:40 – 12:20</u> Chiara Schindler (University of Vienna): On a Stochastic Differential Equation with correction term governed by a monotone and Lipschitz continuous operator

<u>12:20 – 13:00</u> **Alexander Posch** (University of Vienna): Finding sparse solutions to linear systems with a Polyak step size