



Vienna Graduate School on
Computational Optimization

Second Vienna Workshop on Computational Optimization

March 15-17, 2023

**Sky Lounge, 12th floor
Faculty of Mathematics, University of Vienna
(Oskar-Morgenstern-Platz 1, 1090 Vienna)**



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**TECHNISCHE
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**Institute of
Science and
Technology
Austria**



**WIRTSCHAFTS
UNIVERSITÄT
WIEN VIENNA
UNIVERSITY OF
ECONOMICS
AND BUSINESS**

Schedule VWCO23, March 15-17, Vienna

Wednesday, March 15, 2023

8.30-8.45 Registration

8.45-9.00 Opening

Section 1 – Chair Birgit Rudloff (WU)

9.00-9.45 Andrzej Ruszczyński (Rutgers University) *Stochastic optimization and learning with risk-averse objectives*

9.45-10.15 Niklas Hey (WU) *Computing an approximate set of Nash equilibria for convex Nash games via vector optimization*

10.15-10.45 Coffee break

10.45-11.30 René Henrion (Weierstrass Institute Berlin) *Turnpike phenomenon in discrete-time optimal control with probabilistic constraint*

11.30-12.00 Nurtai Meimanjan (WU) *Computation of systemic risk measures: a mixed-integer programming approach*

12.00-12.30 Aleksandr Shevchenko (ISTA) *Fundamental limits of two-layer autoencoders, and achieving them with gradient methods*

12.30-2.00 Lunch break

Section 2 – Chair Radu Boț (University of Vienna)

2.00-2.45 Hedy Attouch (Université de Montpellier) *Fast convex optimization via damped inertial dynamics with Tikhonov regularization*

2.45-3.15 David Alexander Hulett (University of Vienna) *From maximally monotone operators to linearly constrained problems*

3.15-3.45 Coffee break

3.45-4.30 Andrea Walther (Humboldt Universität zu Berlin) *On nonsmooth optimization based on absolute linearization*

4.30-5.00 Axel Böhm (University of Vienna) *Beyond the golden ratio for variational inequality algorithms*

5.00-5.30 Mikhail Karapetyants (University of Vienna) *Fast continuous time approaches for convex nonsmooth optimization using Tikhonov regularization technique*

5.30 Welcome Reception (Sky Lounge)

Thursday, March 16, 2023

Section 1 – Chair Immanuel Bomze (University of Vienna)

9.00-9.45 Jean Bernard Lasserre (CNRS Toulouse) *The Christoffel function: Some of its applications and connections*

9.45-10.15 Jeferson Zapata *Hybrid methods in semidefinite programming*

10.15-10.45 Coffee break

- 10.45-11.30 Ivana Ljubic (ESSEC Business School of Paris) *Bilevel optimization under uncertainty*
- 11.30-12.00 Bo Peng (University of Vienna) *Lower bounds for structured nonconvex quadratic optimization problems*
- 12.00-12.30 Markus Gabl (Karlsruhe Institute of Technology) *Concave tents: A new approach to optimizing nonlinear convex functions over nonconvex set*
- 12.30-2.00 Lunch break

Section 2 – Chair Günther Raidl (TU Wien)

- 2.00-2.45 Sebastian Pokutta (TU Berlin) *Conditional Gradients - an overview*
- 2.45-3.15 Alexandra Peste (ISTA) *Effects of neural network compression beyond accuracy*
- 3.15-3.45 Coffee break
- 3.45-4.30 Pascal van Hentenryck (Georgia Tech) *Machine learning for optimization*
- 4.30-5.00 Marc Huber (TU Wien) *A policy-based learning beam search for combinatorial optimization*
- 5.00-5.30 Tommaso Mannelli Mazzoli (TU Wien) *Adaptive large neighborhood search for the bus driver scheduling problem*
- 5.30 Workshop Dinner (Restaurant Porzellan Lounge)

Friday, March 17, 2023

Section 1 – Chair Monika Henzinger (ISTA)

- 9.00-9.45 Michael Mitzenmacher (Harvard University) *Algorithms with predictions*
- 9.45-10.15 Lara Ost (University of Vienna) *Dynamic demand-aware link scheduling for reconfigurable datacenters*
- 10.15-10.45 Coffee break
- 10.45-11.30 Harald Räcke (TU München) *Hop-constrained expander decompositions, oblivious routing, and distributed universal optimality*
- 11.30-12.00 Sricharan Arunapuram (University of Vienna) *Electrical flows for polylogarithmic competitive oblivious routing*
- 12.00-12.30 Maximilian Vötsch (University of Vienna) *Online min-max paging*
- 12.30-2.00 Lunch break

Section 2 – Chair Nysret Musliu (TU Wien)

- 2.00-2.45 Guoyin Li (University of New South Wales Sydney) *Proximal methods for nonsmooth and nonconvex fractional programs: when sparse optimization meets fractional programs*
- 2.45-3.15 Ida Gjergji (TU Wien) *A large neighborhood search for the capacitated p -median problem*
- 3.15-3.45 Coffee break
- 3.45-4.15 Beryl Ramadhian Aribowo (University of Vienna) *Optimization in data science: 100 energies to learn molecular chemistry?*
- 4.15-4.45 Nikolaus Frohner (TU Wien) *Approaches to same-day delivery problems with soft deadlines*

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