



## Workshop “Optimization Methods in Acoustics“

Vienna, October 12-14, 2022

Organisers: Peter Balazs (Acoustics Research Institute), Radu Boţ (University of Vienna)

### Wednesday, October 12, 2022 – University of Vienna, Faculty of Mathematics, BZ 09

14:20 – 14:30 **Opening**

14:30 – 15:20 **David Russell Luke (University of Göttingen):** *Convergence in Distribution of Randomized Algorithms: The Case of Partially Separable Optimization*

15:20 – 16:00 **Georg Tauböck (TU Wien):** *Audio Inpainting*

16:00 – 16:30 **Coffee break**

16:30 – 17:10 **Dang-Khoa Nguyen (University of Vienna):** *Fast Krasnosel'skii-Mann algorithm with a convergence rate of the fixed point iteration of  $o(1/k)$*

17:10 – 18:00 **Camille Castera (University of Tübingen):** *A second-order inertial algorithm for non-smooth non-convex large scale optimization*

18:00 – **Workshop dinner “Ristorante I Vecchi Amici”**

### Thursday, October 13, 2022 – Acoustics Research Institute

09:30 – 10:20 **Aris Daniilidis (TU Wien):** *Descent modulus and function determination*

10:20 – 11:00 **Piotr Majdak (ARI, ÖAW):** *Acoustic System Measurements (HRTFs)*

11:00 – 11:30 **Coffee break**

11:30 – 12:10 **Axel Böhm (University of Vienna):** *Using second order information via Hessian-vector products*

12:10 – 12:40 **Rossen Nenov (ARI, ÖAW):** *Accelerated Fast Griffin-Lim*

12:40 – 14:30 **Lunch**

14:30 – 15:20 **Nathanaël Perraudin (Swiss Data Science Center):** *Poisson Non-negative Matrix Factorization*

15:20 – 16:00 **Robert Csetnek (University of Vienna):** *On closed-loop control systems*

16:00 – 16:30 **Coffee break**

16:30 – 17:10 **Christian Kasess (ARI, ÖAW):** *Vocal Tract Estimation*

17:10 – 17:50 **Buris Tongnoi (University of Vienna):** *Tseng's algorithm with extrapolation from the past endowed with variable metrics and error terms*

### Friday, October 14, 2022 – University of Vienna, Faculty of Mathematics, HS 17

09:30 – 10:20 **Szilárd László (Technical University of Cluj-Napoca):** *On the strong convergence of the trajectories of a Tikhonov regularized second order dynamical system with asymptotically vanishing damping*

10:20 – 11:00 **N. Perraudin/N. Holighaus/P. Balazs (ARI, ÖAW):** *Optimization for the Gabor transform*

11:00 – 11:30 **Coffee break**

11:30 – 12:10 **Michael Sedlmayer (University of Vienna):** *An Accelerated Minimax Algorithm for Convex-concave Saddle Point Problems with Nonsmooth Coupling Function*

12:10 – 13:00 **Puya Latafat (KU Leuven):** *Convergence of operator splitting methods for nonmonotone inclusions*