

Workshop „Inverse Problems in the Alps II“

Obergurgl, AT, 21 – 23 March 2018

Scientific Program

Wednesday, 21 March 2018

- 09:00 – 09:30 **Laser beam imaging from the speckle pattern of the off-axis scattered In Tensity**
Liliana Borcea, University of Michigan
- 09:30 – 10:00 **All-at-once versus reduced iterative methods for time dependent inverse Problems**
Barbara Kaltenbacher, Alpen-Adria-Universität Klagenfurt
- 10:00 – 10:30 **Imaging small polarizable scatterers with polarization data**
Fernando Guevara Vasquez, University of Utah
- 10:30 – 11:00 *Coffee Break*
- 11:00 – 11:30 **Acoustic Imaging and Multiple Removal via Model Order Reduction**
Alex Mamonov, University of Houston
- 11:30 – 12:00 **Coherent Acousto-Optic Imaging**
John Schotland, University of Michigan
- Break, Dinner 18:00 – 19:15*
- 19:15 – 19:45 **Improving FDK Reconstruction by Data-Dependent Filtering**
Rien Lagerwerf, CWI, Netherlands
- 19:45 – 20:15 **The reconstruction of a source and a potential from boundary measurements**
Amin Boumenir, University of West Georgia
- 20:15 – 20:45 **Signal Analysis and Reconstruction Algorithms in 2D Computed Tomography**
Adel Faridani, Oregon State University

Thursday, 22 March 2018

- 09:00 – 10:00 **Nonlinear responses from the interaction of two progressing waves at an interface**
Maarten de Hoop, Rice University
- 10:00 – 10:30 **Stability in Inverse Problems via Unique Continuation Properties**
Sergio Vessella, Università Degli Studi Firenze
- 10:30 – 11:00 *Coffee Break*
- 11:00 – 11:30 **On an elastic model arising from volcanology: an analysis of the direct and inverse problem**
Andrea Aspri, RICAM Linz
- 11:30 – 12:00 **A transmission problem on a polygonal partition**
Elisa Francini, University of Florence
- 12:00 – 12:30 **An inverse problem for a semilinear parabolic equation arising in cardiac electrophysiology**
Cristina Cerutti, Politecnico di Milano

Break, Dinner 18:00 – 20:00

Friday, 23 March 2018

- 09:00 – 09:30 **On the seismic inverse problem: uniqueness, stability and reconstruction**
Elena Beretta, Politecnico di Milano
- 09:30 – 10:00 **Ill-posedness concepts in Hilbert spaces and first steps for handling over smoothing penalties**
Bernd Hofmann, TU Chemnitz
- 10:00 – 10:30 **Topological derivatives for domain functionals with an application to tomography**
Esther Klann, TU Berlin
- 10:30 – 11:00 *Coffee Break*
- 11:00 – 11:30 **A variational reconstruction method for dynamical X-ray tomography.**
Tapio Helin, University of Helsinki
- 11:30 – 12:00 **Using Landwebers method to quantify source conditions - a numerical study**
Daniel Gerth, TU Chemnitz, Germany
- 12:00 – 13:00 *Closing Lunch*