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, Universitá 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*