

15th Inverse Days 2009

at Hotel Luostotunturi, Sodankylä, Finland

Wednesday 16th December 2009

- 8.10 *Bus transportation from Rovaniemi*
11.00 *Registration + Lunch + Check-in to the hotel and log cabins*

Afternoon Session 1, Chair Matti Lassas

- 12.20 Markku Lehtinen Opening of the Inverse Days
Lassi Roininen Discussion about practical issues
12.30 Kirsi Peltonen Heisenberg group-connecting geometries in dimensions 2,3 and 4
13.00 Patricia Gaitan Simultaneous Identification of the Diffusion Coefficient and the Potential for the Schrödinger Operator with only one Observation
13.30 Roberta Bosi Quantum kinetic equations: direct and inverse problems
14.00 Oana Constantinescu The inverse problem of the calculus of variations
14.30 *Coffee break*

Afternoon Session 2, Chair Samuli Siltanen

- 15.00 Harri Auvinen The variational Kalman filter and an efficient implementation using limited memory BFGS
15.30 Juha-Matti Perkkiö Ray transform in Finsler spaces
16.00 Michel Cristofol Stability Reconstruction of Two Coefficients Simultaneously in a Nonlinear Parabolic Equation
16.30 Sampsa Pursiainen Conditionally Gaussian Hypermodels for Cerebral Source Localization

Evening Sessions

- 17.30 Annual meeting of the Finnish Inverse Problems Society
19.00 *Conference sauna at Metsä-Luosto (500 meters from the hotel), dinner in the sauna also*

Thursday 17th December 2009

Morning Session, Chair Lassi Päivärinta

- 9.00 Matti Lassas Inverse problems for wave equation with new type of measurements
9.30 Sari Lasanen Posterior convergence for correlation priors
10.00 Juha Vierinen Moving point-target detection using Bayesian model selection
10.30 *Coffee break*
11.00 Chris Johnson Finite Element Discretization Strategies for the Electrocardiographic (ECG) Inverse Problem
11.30 Samuli Siltanen Computerized inversion for spoken language

Afternoon Session, Chair Marko Laine

- 12.00 Esa Turunen EISCAT3D - A European Three-Dimensionally Imaging Radar for Atmospheric and Geospace Research
- 12.30 Marko Vauhkonen From inverse problems to practical applications
- 13.00 *Lunch*
- 14.00 Mikko Orispää Developments in FLIPS
- 14.30 Antti Solonen Simulation Based Optimal Design

Parallel Session

- 14.00 SAB meeting or random things for random people

Evening Sessions

- 19.00 *Conference Dinner at hotel*

Friday 18th December 2009

Morning Session, chair Valeriy Serov

- 9.00 Matias Dahl Descending maps between slashed tangent bundles
- 9.30 Ioan Bucataru Helmholtz conditions for projective metrizable problem and their formal integrability
- 10.00 Lauri Harhanen Convex source support in half-plane
- 10.30 Nuutti Hyvönen Inverse backscattering in electric impedance tomography
- 11.00 *Lunch + Check-out*

Afternoon Session, chair Mikko Kaasalainen

- 12.00 Olivier Poisson Probing for inclusions in heat conductive bodies
- 12.30 Bastian Harrach Exact shape-reconstruction by one-step linearization in electrical impedance tomography
- 13.00 Tanja Tarvainen Approximation error approach for compensating modelling errors between the radiative transfer equation and diffusion approximation in diffuse optical tomography
- 13.30 Petri Hiltunen A combined reconstruction-classification algorithm for diffuse optical tomography
- 14.00 Aku Seppänen Electrical impedance tomography imaging of concrete
- 14.30 Professors Closure of the Inverse Days + Pertti 'Lande' Lindfors Prize

Departure

- 15.15 *Departure by bus for the evening flight to Helsinki + night trains*