

Schedule GIP Annual Meeting 2025

Venue: Innovation Center

Room 0.01

| Time | Wednesday 8 October 2025 | Thursday 9 October 2025 |
|---------------------|---|--|
| 8:30 am – 9 am | Registration | |
| 9 am – 9:15 am | Welcome | information |
| | <i>Chair: Andreas Rupp</i> | <i>Chair: Thomas Schuster</i> |
| 9:15 am – 10 am | Lauri Oksanen (University of Helsinki) <i>Optimality of stabilized finite element methods for elliptic unique continuation</i> | Anne Wald (University of Göttingen) <i>Inverse problems for the identification of forces in biophysics</i> |
| 10 am – 10:30 am | Marvin Knöller (University of Helsinki) <i>A computational method for the inverse Robin problem with convergence rate</i> | Ole Løseth Elvetun (Norwegian University of Life Sciences) <i>Weighted group sparsity for an inverse EEG problem</i> |
| 10:30 am – 11:00 am | Coffee break | Coffee break |
| 11:00 am – 11:30 am | Bjørn Fredrik Nielsen (Norwegian University of Life Sciences) <i>Weighted TV-regularization</i> | E. Todd Quinto (Tufts University Medford) <i>Spherical Radon transforms in tomography</i> |
| 11:30 am – 12 am | Tim Jahn (TU Berlin) <i>Convergence of heuristic parameter choice rules for statistical inverse problems</i> | Hendrik Baers (University of Bonn) <i>Reducing stability questions for a nonlocal to a local Calderón type problem</i> |
| 12 am – 12:30 pm | Robert Plato (University of Siegen) <i>Regularization of linear ill-posed problems with smooth solutions of low order in Banach spaces</i> | Sarah Eberle-Blick (KU Eichstätt-Ingolstadt) <i>Reconstructions of inclusions in elastic bodies based on experimental data</i> |
| 12:30 pm – 1 pm | Diana-Elena Mirciu (University of Klagenfurt) <i>Higher order error estimates for regularization of inverse problems under non-additive noise</i> | Jaakko Kultima (RICAM Linz) <i>Wavelet-based reconstruction for Bayesian inverse problems in photoacoustic tomography</i> |

| | | |
|-------------------|--|--|
| 1 pm – 2:30 pm | lunch | group photo lunch |
| | | |
| | <i>Chair: Frank Werner</i> | <i>Chair: Bernadette Hahn-Rigaud</i> |
| 2:30 pm – 3:15 pm | Björn Sprungk (TU Freiberg) <i>Bayesian inverse problems – stability and noise-level robust sampling</i> | Leon Bungert (University of Würzburg) <i>Sparsity and robustness in learning: insights from inverse problems</i> |
| | | |
| 3:15 pm – 3:45 pm | Volker Michel (University of Siegen) <i>Motivating children and adults for inverse problems – suggestions and experiences</i> | Dean Zenner (Saarland University Saarbrücken) <i>Learning a neural operator for inverse parameter estimation of an electric arc furnace</i> |
| | | |
| 3:45 pm – 4:15 pm | Coffee break | Coffee break |
| | | |
| | | <i>Chair: Volker Michel</i> |
| 4:15 pm – 4:45 pm | Simon Hackl (University of Linz) <i>Sound speed and layer adapted focusing methods in medical ultrasound</i> | Alice Oberacker (Saarland University Saarbrücken) <i>Reducing motion artifacts in nano-CT imaging with a learned RESESOP method</i> |
| | | |
| 4:45 pm – 5:15 pm | Tim-Jonas Peter (University of Siegen) <i>Modelling of the earth's gravitational response to surface loading: an overview of available methods for Love number calculation</i> | Simon Hubmer (University of Linz) <i>The SCD semismooth* Newton method for the efficient minimization of Tikhonov functionals</i> |
| | | |
| 5:15 pm – 5:45 pm | Lisa Schätzle (Aalto University) <i>Far field operator splitting for inhomogeneous medium scattering</i> | Simon Weißmann (University of Mannheim) <i>Stability and convergence for stochastic gradient descent with decaying Tikhonov regularization</i> |
| | | |
| 7 pm | conference diner at „Brauhaus Stiefel“ | general assembly of GIP e.V. room: 0.01 |
| | | |

Room 3.03

Parallel session Wednesday, 8 October

Report and information German – Sino collaboration project

3:15 pm – 3:45 pm: Ming Jiang (University of Peking)

Summary of the Sino-German Mobility Programme (M-0187)

3:45 pm – 4:15 pm: Peter Maaß (University of Bremen)

Status of the osteoporosis project

Room 0.01

| Time | Friday 10 October 2025 |
|---------------------|--|
| | |
| | <i>Chair: Thomas Schuster</i> |
| | |
| 9:00 am – 9:30 am | Jan-Frederik Pietschmann (University of Augusburg) <i>Transport map regularization for source identification</i> |
| | |
| 9:30 am – 10:00 am | Thorsten Hohage (University of Göttingen) <i>Phase contrast imaging with partial coherence: Uniqueness and reconstructions from intensity correlations</i> |
| | |
| 10:00 am – 10:30 am | Florian Oberender (University of Göttingen) <i>Stability of inverse problems in PINEM quantum tomography</i> |
| | |
| 10:30 am – 11:00 am | Amine Othmane (Saarland University Saarbrücken) Identification of cost functionals and stabilizing feedback laws in optimal control problems |
| | |
| 11:00 am | Coffee break and closing |
| | |