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SFB - Tomography Across the Scales

**2nd Workshop**

December 3 - 6, 2018, Obergurgl, Austria,

## Program

### Monday, December 3, 2018

- 17:30 – 18:30      Opening Dinner
- 18:30 – 19:15      **Generic Inverse Modelling**  
Rainer Heintzmann, University of Jena, Germany

### Tuesday, December 4, 2018

- 09:00 – 09:30      **A data-driven iteratively regularized Landweber iteration**  
Andrea Aspri, RICAM Linz
- 09:30 – 10:00      **Single molecule-based examination of fluorophore blinking for comprehensive PALM analysis**  
Mario Brameshuber, TU Wien
- 10:00 – 10:30      **Ultra-high resolution microscopy. Addressing system stability**  
Montse López, TU Wien
- 10:30 – 10:50      *Coffee Break*
- 10:50 – 11:20      **Ultra-high resolution microscopy. Simulations of oligomeric protein structures**  
Magdalena Schneider, TU Wien

11:20 – 11:35	<b>Status Report: Reconstruction techniques in single molecule microscopy</b> Fabian Hinterer, JKU Linz
11:35 – 12:05	<b>On the reconstruction of oligomeric structures in ultra-high resolution microscopy</b> Roger Telschow, Uni Wien
12:05 – 17:30	~ Break ~
17:30 – 18:30	Dinner
18:30 – 19:15	<b>Towards structural cell biology using superresolution microscopy</b> Jonas Ries, European Molecular Biology Laboratory Heidelberg, Germany
19:30 – 21:00	Pls Meeting

## Wednesday, December 5, 2018

09:00 – 09:50	<b>Progress report: setting up a new microscope with 3D ultrasonic trapping and an optical tweezer</b> Mia Kvåle Løvmo and Benedikt Pressl, MedUni Innsbruck
09:50 – 10:20	<b>Mathematical model for non-linear Optics</b> Kamran Sadiq, RICAM Linz
10:20 – 10:45	<i>Coffee Break</i>
10:45 – 11:15	<b>Three-Dimensional Motion Estimation from Projection Data</b> Denise Schmutz, Uni Wien
11:15 – 11:45	<b>Recent advances and challenges in Quantitative Elastography</b> Ekaterina Sherina, Uni Wien
11:45 – 12:15	<b>Singular Value Decompositions for Atmospheric Tomography - A Status Report</b> Simon Hubmer, RICAM Linz
12:15 – 12:45	<b>Preliminary studies on using fast AO reconstructors in ophthalmic imaging based on the Shack-Hartmann sensor</b> Günter Auzinger, JKU Linz
12:45 – 17:30	~ Break ~

17:30 – 18:30	Dinner
18:30 – 19:15	<b>Augmented Arnoldi-Tikhonov methods for solving large-scale ill-posed Problems</b> Kirk Soodhalter, Trinity College Dublin, Ireland
19:30 – 21:00	Member Meeting

## Thursday, December 6, 2018

09:30 – 10:00	<b>PAT-OCT Elastography and Tissue Optics</b> Lisa Krainz, MedUni Wien
10:00 – 10:30	<b>Adaptive optics OCT for visual science</b> Elisabeth Brunner, MedUni Wien
10:30 – 10:45	<i>Coffee Break</i>
10:45 – 11:15	<b>Quantitative OCT: Back to basics</b> Leonidas Mindrinos, RICAM Linz
11:15 – 11:45	<b>Quantitative PAT-OCT: An elementary approach</b> Leopold Veselka, Uni Wien
11:45 – 12:00	<i>Closing Session</i>