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SFB F68 - Tomography Across the Scales

Eleventh Internal Meeting

Villa Sonnwend, 19.06.2022 – 22.06.2022

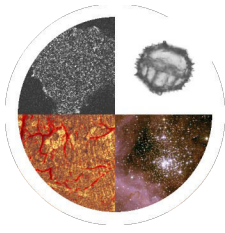
Program

Sunday, June 19, 2022

- 19:00 – 20:00** *Opening Dinner*
- 20:00 – 20:30** **Welcome and Discussion**
Ronny Ramlau (JKU and RICAM) and Otmar Scherzer (University of Vienna)

Monday, June 20, 2022

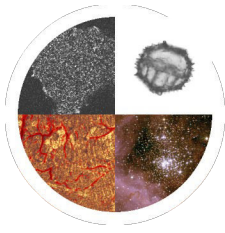
- 08:30 – 10:10** Session: **“Ultra-high Resolution Microscopy – Adaptive Optics”**
- 08:30 – 09:30** **Ultra-high Resolution Microscopy**
Gerhard Schütz (TU Wien), Montse López Martínez (TU Wien), Fabian Hinterer (JKU), and Magdalena Schneider (TU Wien)
- 09:30 – 09:50** **Fourier Optics in Microscopy and Digital Aberration Correction**
Simon Hubmer (RICAM)
- 09:50 – 10:10** **Nonlinear Fourier-type wavefront sensing for adaptive optics control in ophthalmic OCT imaging**
Victoria Hutterer (JKU)
- 10:10 – 10:30** *Coffee Break*
- 10:30 – 12:00** **Sub-projects Collaborative Discussions**
Session: **“Ultra-high Resolution Microscopy”**
Participant groups: **SP5, SP7, SP9 and SP10**
- 12:00 – 13:30** ~ *Lunch Break* ~
- 13:30 – 14:30** *PI Meeting (PIs, coordinator, and speaker of the SFB members only)*



- 14:30 – 15:30** Session: “Quantitative Imaging”
- 14:30 – 15:00** **Unifying Topics of “Tomography Across the Scales” – A Mathematical Perspective**
Otmar Scherzer (RICAM)
- 15:00 – 15:30** **Progress Report in OCT Elastography**
Lisa Krainz (MedUni Vienna) and Ekaterina Sherina (University of Vienna)
- 15:30 – 17:00** **Sub-projects Collaborative Discussions**
Session: “Quantitative Elastography and OCT”
Short talk: Update on real data OCT parameter reconstructions
Leopold Veselka (University of Vienna)
Participant groups: SP3, SP4 and SP7
- 18:00 – 19:00** *Dinner*
- 19:00 – 20:00** *Member Meeting (SFB members only)*

Tuesday, June 21, 2022

- 08:30 – 10:00** Session: “Imaging of Trapped Particles - Tomography with Uncertainties”
- 08:30 – 09:00** **Motion Detection in Diffraction Tomography by Common Circle Methods**
Michael Quellmalz (TU Berlin)
- 09:00 – 09:30** **Acoustofluidic chip for object rotation and high-NA imaging**
Mia Kvåle Løvmo (MedUni Innsbruck)
- 09:30 – 10:00** **Quantitative Elastic Diffraction Tomography**
Bochra Mejri (RICAM)
- 10:00 – 10:30** *Coffee Break*
- 10:30 – 12:00** **Sub-projects Collaborative Discussions – Parallel Sessions**
- 10:30 – 12:00** Session: “Imaging of Trapped Particles - Tomography with Uncertainties”
Participant groups: SP4, SP6, SP7 and SP10
Short talk: TBA
Leon Frischauf (University of Vienna)



10:30 – 12:00 Session: **“Adaptive Optics”**
Participant groups: **SP3, SP5 and SP11**

12:00 – 13:30 ~ Lunch Break ~

13:30 – 18:30 Excursion

18:30 – 20:00 Dinner

Wednesday, June 22, 2022

08:30 – 09:30 Session: **“Extragalactic Archeology”**

08:30 – 09:00 **Linking Galaxies Near and Far with Integral Field Unit Spectroscopy**
Glenn van de Ven (University of Vienna)

09:00 – 09:30 **A projected Nesterov-Kaczmarz approach to stellar population-kinematic distribution reconstruction in Extragalactic Archaeology**
Prashin Jethwa (University of Vienna) and Fabian Hinterer (JKU)

09:30 – 10:00 *Coffee Break*

10:00 – 11:30 **Sub-projects Collaborative Discussions**
Session: **“Extragalactic Archeology”**
Short talk: An update on uncertainty quantification for stellar population recoveries
Fabian Parzer (University of Vienna)
Participant groups: **SP5, SP7 and SP11**

12:00 – 13:00 ~ Lunch Break ~