

WG4 Meeting in Helsinki "Spectro-polarimetric experiments for remote sensing"

PROGRAM

Monday, 19th August

Morning

09:30 Coffee break / *sponsored by FGI* /

10:00 *Opportunity for spectropolarimetric measurements at FGI: overview of the laboratory equipment with demonstration*

12:00 Lunch. Restaurant Pisara, Masalanportti, Eteläinen Salmitie 1 <http://www.ravintolapisara.fi/>

13:30 Opening (KM/JP/MG)

Welcome speech by FGI's Director General Prof. Jarkko Koskinen

Session 1. Laboratory measurements and experiments

- 13:45 William Martin "Spectropolarimetry of Lunar Regolith in the Laboratory" (invited)
- 14:15 Hanna Pentikäinen "Meteorite spectrometry in Vis-NIR with classification and radiative-transfer modeling"
- 14:45 Teemu Hakala "FIGIFIGO: An Advanced Portable System for Spectropolarimetry"

15:15 Coffee break

- 16:00 Mauro Focardi "Remote sensing of the Sun K-corona with the VIS polarimetric channel of the METIS coronagraph on-board Solar Orbiter"
- 16:30 Maurizio Pancrazzi "A proposal for the development of an integrated visible and UV CMOS detector polarimeter based on a nano-WGP"
- 17:00 Maria Gritsevich "Polarisation measurements of clay, volcanic sand and snow: implications for the climate changes"
- 17:30 Jouni Peltoniemi "FGI's Reflectance Library and Future Perspectives"
- 18:00 Discussion: "Wish list for a new measurement setup and missing targets"

18:30–21:00 *Informal discussion: Welcome reception / Sauna at FGI / sponsored by FGI /*

Tuesday, 20th August

09:30 Coffee break

Session 2. Polarimetric aspects in observations

- 10:00 Frans Snik “Polarimetry of planetary atmospheres” (invited)
- 10:30 Pavel Lytvynov “Remote sensing from POLDER/PARASOL Earth polar-orbiting satellite: surface reflection modeling and Surface/Aerosol properties retrieval” (invited)
- 11:00 Alberto Cellino “Spectro-Polarimetry as a potentially powerful tool for asteroid studies”
- 11:30 William Martin “Spectropolarimetry, Biosignatures, and the Search for Chirality”

12:00 Lunch. Restaurant Pisara, Masalanportti, Eteläinen Salmitie 1 <http://www.ravintolapisara.fi/>

Session 3. Modeling aspects

- 13:40 Karri Muinonen “Multiple scattering of light in planetary regoliths”
- 14:20 Ghislain Franssens “Characterizing Mueller matrices in Polarimetry”
- Evelyn Hesse “Investigations on the influence of particle geometry and surface properties on the linear polarisation of scattered light” (canceled)

15:00 Coffee break

- 15:45 Evgenij Zubko “Light scattering by feldspar particles: Modeling laboratory measurements”
- 16:15 Jouni Peltoniemi “Polarisation of vegetation”
- 16:45 Discussion: “Bridging a theory and experiments: what has to be done to make it better?”

19:00 *Conference Dinner at Suomenlinna, “Ravintola Suomenlinnan Panimo”*
<http://www.panimoravintola.fi/en/>; Address: Suomenlinna c 1, 00190 Helsinki

Wednesday, 21st August

10:00 *Overview of the light scattering laboratory (Kumpula Campus, Department of Physics University of Helsinki) & closing discussion*

12:00 Lunch (restaurant at the Finnish Meteorological Institute) & 13:30 Helsinki tour (optional)