

2nd Workshop on Studies of Atmospheric Aerosol Using
Multi - Angle Spectropolarimetry (Bern, ISSI, July 15-19, 2013)

Monday, July 15, 2013

10:00-10:30 A. Kokhanovsky (Germany) 'Introduction, logistics, and workshop goals'

10:30-11:30 P. Litvinov et al. (France) 'Aerosol/surface properties retrieval over land: experience based on GRASP - new POLDER retrieval algorithm over land'

11:30-12:30 O. Hasekamp (The Netherlands) 'POLDER retrievals over ocean and land'

12:30-14:30 Lunch

14:30-15:30 A. di Noia (The Netherlands) 'Use of neural networks in spectropolarimetric aerosol retrievals'

15:30-16:30 *Discussions* on **modern aerosol retrieval algorithms**

Tuesday, July 16, 2013

10:00-10:45 K. Stamnes (USA) 'Inverse methods applied to coupled atmosphere-surface systems: What if MODIS had polarization capabilities?'

10:45-11:30 W. G. K. Martin (USA) 'Aerosol retrievals from single-scattering measurements in the visible spectrum: resolved microphysical properties, fundamental limitations, and the benefits of polarization'

11:30-12:00 I. Sano (Japan) 'An update on S-GLI retrieval algorithm'

12:00-12:30 T. Trautmann (Germany) 'The 2D/3D radiative transfer'

12:30- 14:30 Lunch

14:30-15:30 P. Litvinov (France) 'Modelling of land surface reflectance'

15:30-16:30 *Discussions* on **surface reflectance models**

Wednesday, July 17, 2013

09:00-09:30 O. Hasekamp (The Netherlands) ‘SPEX2earth instrument development and first ground based retrievals’

09:30-10:00 O. Kalashnikova (USA) ‘Recent deployments of AirMSPI and progress on AirMSPI-2’

10:00-10:30 B. Cairns (USA) ‘PODEX field experiment’

10:30-11:00 V. Natraj (USA) ‘The potential of passive VNIR observations in gaseous absorption regions to retrieve aerosol vertical profiles’

11:00-11:30 O. Kalashnikova (USA) ‘Polarimetric sensitivities to absorbing aerosol height and single scattering albedo’

11:30-13:30 *Discussions* of **modern aerosol instruments**

13:30-17:30 Excursion

Thursday, July 18, 2013

10:00-10:30 V. Natraj (USA) ‘Linearized principal component analysis as a tool to speed up remote sensing retrievals’

10:30-11:00 B. Cairns (USA) ‘A hierarchy of Jacobian calculations: using the Green’s function to construct hybrid approximations’

11:00-11:30 K. Stamnes (USA) ‘Radiative transfer in coupled atmosphere-ocean-cryosphere systems: A review of recent developments based on the discrete-ordinate method’

11:30-12:00 A. Kokhanovsky, V. Rozanov, A. Rozanov, J. P. Burrows (Germany) ‘Software package SCIATRAN’

12:00 -12:30 Ya. Ilyushin (Russia) ‘Polarized radiative response of 3D inhomogeneous scenes’

12:30-14:30 Lunch

14:30-15:30 D. Efremenko (Germany) ‘An overview of acceleration techniques for linearized radiative transfer codes’

15:30-16:30 A. Davis (USA) ‘Forward vector radiative transfer model intercomparison: status report and future plans’

16:30-17:00 *Discussions* on **forward radiative transfer models**

Friday, July 19, 2013

10:30-11:30 A. Stap (The Netherlands) ‘Aerosol retrievals in partially cloudy scenes’

11:30-12:30 *Discussions* on evaluation of additional aerosol parameters including aerosol height; cloud screening; retrievals for partially cloudy scenes, including 3D radiative transfer effects

12:30-14:00 Final discussions and closure of the meeting