

1st Workshop on Studies of Atmospheric Aerosol Using Multi - Angle Spectropolarimetry (Bern, July 16-20, 2012)

Monday, July 16, 2012

10:00-10:20 M. Falanga (Switzerland) Introduction to ISSI activities
10:20-10:30 A. A. Kokhanovsky(Germany) Workshop goals and logistic
10:30-11:15 A. A. Kokhanovsky(Germany) and aerosol retrieval team 'The comparison of retrievals using different aerosol algorithms'
11:15-13:30 Discussions: information content of top-of-atmosphere reflectance and degree of polarization measurements
13:30-14:30 Lunch
14:30-15:30 O. Hasekamp (The Netherlands) and SPEX team 'SPEX: Multi-angle spectro-polarimetry for aerosol characterization from the ISS'
15:30-16:15 B. Cairns (USA) 'Assessing accuracy requirements and their implementation in functional and actual instrument design: some recent examples'
16:15-17:00 Discussions: modern instruments for aerosol retrievals
17:00 Welcome drink (ISSI)

Tuesday, July 17, 2012

09:30-10:15 B. Cairns et al. (USA) 'The Born approximation'
10:15-11:00 M. Duan (China) 'SOSVT: a polarized radiative transfer model and its applications'
11:00-11:45 V. Natraj (USA) 'Using principal component analysis to speed up radiative transfer computations'
11:45-12:30 V. Budak (Russia) 'A new efficient algorithm for the radiative transfer equation solution'
12:30- 14:00 Lunch
14:00 -14:30 Ya. Ilyushin (Russia) 'The advanced small angle approximation in 3D radiative transfer calculations'
14:30-16:00 Discussions: fast radiative transfer methods
16:00-17:00 Discussions: 3-D effects

Wednesday, July 18, 2012

09:30-10:30 O. Dubovik et al. (France) 'Optimized algorithm for retrieving aerosol properties from PARASOL observations over reflective land surfaces'
10:30-11:30 O. Hasekamp et al. (The Netherlands) 'Aerosol optical and microphysical properties from POLDER-PARASOL multi-angle photo-polarimetric measurements'
11:30-12:00 Discussions: the refractive index of multi-component aerosol and its retrieval
12:00-13:00 Lunch
13:00-20:00 Excursion

Thursday, July 19, 2012

09:30-10:15 I. Sano and S. Mukai (Japan) 'Aerosol remote sensing based on combined use of reflectance and polarization measurements'
10:15-11:00 A. Lapatsin (Belarus) 'Combination of passive and active observations in aerosol retrievals'
11:00-12:30 Discussions: aerosols in the vicinity of clouds and aerosol absorption quantification
12:30-13:30 Lunch
13:30 – 14:00 F. Seidel (USA) 'Implications of surface albedo uncertainties on AOD retrievals'
14:00-17:00 Discussions on the common retrieval datasets: PARASOL and synthetic data

Friday, July 20, 2012

09:30-10:15 A. Davis (USA) 'Benchmarking 1-D radiative transfer and inverse problem solutions'
10:15-12:15 Discussions on the atmospheric correction, available databases for retrievals and evaluation of additional aerosol parameters including aerosol height
12:15-13:15 Final discussions and the closure of the meeting