

7th AeroCom workshop

Goal of the meeting:

Present progress with respect to aerosol modeling and data analysis

Review status of model-data comparisons and aerosol model scoring and discuss AeroCom database and its further development

Discuss joint analysis of aerosol model experiments in support of IPCC AR5 and the AC&C and HTAP initiatives (regional emission perturbations, indirect forcing, hindcast, prescribed forcing, interactive aerosol-climate simulations) including a review aerosol model diagnostics for future model experiments

Wednesday morning

- 09:00 **Schulz** welcome, introduction, logistics
09:20 **Bauer** sensitivity of Climate Forcings to Aerosol Physics and Chemistry
09:40 **Gilardoni** black carbon simulations in TM5
10:00 **Hoose** in-droplet / in-crystal aerosols in ECHAM5-HAM model

10:20 coffee&tea

- 10:50 **Takemura** radiative forcing projections for the 21st century
11:10 **Kristjansson** indirect effect sensitivities in the CAM-Oslo model
11:30 **Lu** global aerosol modeling in NCEP GFS
11:50 **Kristjansson** Reykjavík – what to see

12:00 Lunch

Wednesday afternoon

- 15:30 **Bellouin** diffuse radiation impact on continental carbon sink and GEMS aerosol
15:50 **Diehl** multi-decadal variations of aerosol
16:10 **Chin** development of a dynamic dust source function
16:30 **Koch** attribution to 1980-2000 climate change

16:50 coffee&cake

- 17:20 **Schulz** hindcast experiments in the context of HTAP and AC&C

Thursday morning

| | | |
|-------|-----------------------|---|
| 09:00 | Tsigaridis | modeling organic aerosol – time to compare different approaches |
| 09:20 | Schulz | model evaluation through AeroCom |
| 09:40 | Diehl | emission recommendations for hindcast simulations |
| 10:00 | <i>coffee&tea</i> | |
| 10:30 | dePaus | model output harmonization with CMOR |
| 10:50 | Braverman | AMAPS evaluation tool capabilities |
| 11:10 | Kinne | scoring concepts & data update |
| 12:00 | <i>lunch</i> | |

Thursday afternoon

| | | |
|-------|---------------------------------------|---|
| 13:00 | Thomas | GlobAER: up to 12 years of aerosol properties by European sensors |
| 13:20 | Wild | examining BSRN data on dimming and brightening |
| 13:40 | Huneus | defining a dust benchmark test |
| 14:00 | Ferrare | high resolution lidar and CALIPSO |
| 14:20 | da Silva | subgrid variability and AOD calculations |
| 15:00 | <i>coffee&cake</i> | |
| 15:30 | Mann | aerosol microphysics modeling in GLOMAP |
| 15:50 | Seland | internal mixing effects on the direct effect of aerosols |
| 16:10 | Liu | sensitivity of the indirect Effect in NCAR CAM to module complexity |
| 16:30 | Randles | present-day aerosol climatology |
| 16:50 | Paradise | AMAPS evaluation tool demonstration |
| 19:30 | <i>workshop dinner at Cabin Hotel</i> | |

Friday morning

09:00 **Feichter** nudging artifacts
09:20 **Quaas** indirect effect – working group
09:40 **Stier** radiative forcing – working group

10:00 coffee and tea

10:30 **Myhre** radiative forcing
10:50 **Koch** absorption – working group
11:10 **Mann** microphysics and size – working group
11:30 **Schulz** dust – working group

12:00 lunch

Friday afternoon

13:00 Chin for **Chen** summarizing aircraft field experiment data for modeling
13:20 **Schulz/Chin/Kinne** general discussions, outlook, upcoming events

17:00 bus departure for Blue Lagoon and late dinner

Saturday

08:15-18:00 *excursion to (1) geothermal energy facility, (2) Geysir geothermal field, (3) Gullfoss waterfall and (4) Thingvellir National Park*