Programme of the Bad Honnef Physics School

"Atmospheric Physics: Experiment Meets Modelling"

April 28 – May 3, 2019

Day 1, Sunday, April 28, 2019: Arrival and Introduction

Arrival until 17:00

17:00 – 18:00 Icebreaker

18:00 – 19:30 Dinner

20:00 – 21:30 Introduction to the physics school (von Savigny & Notholt)

Day 2, Monday, April 29, 2019: Atmospheric remote sensing

08:45 – 09:00 Introduction to today's programme

09:00 – 10:30 Lecture 1: Introduction to inversion theory (Christian von Savigny, University of Greifswald)

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture 2: Introduction to UV/vis remote sensing (Ulrich Platt, University of Heidelberg)

12:30 – 14:00 Lunch

14:00 – 15:30 Lecture 3: Introduction to IR remote sensing (Justus Notholt, University of Bremen)

15:30 – 16:00 Coffee break

16:00 – 18:00 Lecture 4: Introduction to microwave remote sensing (Susanne Crewell, University of Köln)

18:00 – 19:30 Dinner

Day 3, Tuesday, April 30, 2019: Chemical composition Measurements

08:45 – 09:00 Introduction to today's programme

09:00 – 10:30 Lecture 5: Pollution monitoring in the optical spectral range (Andreas Richter, University of Bremen)

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture 6: Introduction to In-situ measurements of atmospheric composition (Ralf Koopmann, University of Wuppertal)

12:30 – 14:00 Lunch

14:00 – 15:30 Lecture 7: Introduction to LIDAR remote sensing of stratospheric composition (Wolfgang Steinbrecht, DWD)

15:30 – 16:00 Coffee break

16:00 – 18:00 Discussion on geoengineering (All, with introductory presentations by participants)

18:00 – 19:30 Dinner

Day 4, Wednesday, May 1, 2019: Physics of stratospheric processes

08:45 – 09:00 Introduction to today's programme

09:00 – 10:30 Lecture 9: Introduction to stratospheric modelling (Martin Dameris, DLR)

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture 10: Modelling large volcanic eruptions (Claudia Timmreck, MPI Meteorology)

12:30 – 14:00 Lunch

14:00 – 18:00 Excursion

18:00 – 19:30 Dinner

Day 5, Thursday, May 2, 2019: Physics of the middle and upper atmosphere

08:45 – 09:00 Introduction to today's programme

09:00 – 10:30 Lecture 11: Introduction to modelling atmospheric dynamics (Erich Becker, IAP Kühlungsborn)

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture 12: Introduction to airglow and remote sensing applications (Christian von Savigny, University of Greifswald)

12:30 – 14:00 Lunch

14:00 – 15:30 Lecture 13: Introduction to modelling particle precipitation effects on atmospheric chemistry (Miriam Sinnhuber, KIT)

15:30 – 16:00 Coffee break

16:00 – 17:30 Lecture 14: Introduction to ionospheric physics (Claudia Stolle, GFZ Potsdam)

18:00 – 19:30 Dinner

Day 6, Friday, May 3, 2019: Laboratory studies & thermodynamic foundation

08:45 – 09:00 Introduction to today's programme

09:00 – 10:30 Lecture 14: Laboratory studies of aerosol formation (Thomas Leisner, KIT)

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture 15: Thermodynamics of the Earth System (Axel Kleidon, MPI Biogeochemistry)

12:30 – 14:00 Lunch

14:00 – 15:00 Summary (Notholt & von Savigny)

15:00 End of Summer School