

# Ny-Ålesund Atmosphere Flagship open workshop 15-19 October 2018 at AWI Potsdam, Germany

## PROGRAM



Photos from SU and NILU

### **MONDAY, 15 October**

13:30      *Introduction, Overview, Logistics*

#### **Overview Session (Chair R. Neuber)**

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14:00 – 14:20	Marion Maturilli (AWI)	WG2: Long term trends and observations
14:20 – 14:40	Christoph Ritter (AWI)	WG3: Boundary layer meteorology
14:40 – 15:00	Jean-Charles Gallet (NPI)	WG4: Snow-Atmosphere interactions
15:00 – 15:20	Boyan Petkov (CNR)	WG6: Surface UV irradiance and columnar ozone
15:20 – 16:00		<i>Coffee break</i>
16:00 – 16:20	Yutaka Tobo (NIPR)	WG1: Clouds, humidity, precipitation
16:20 – 16:40	Radovan Krejci (SU)	WG5: Atmospheric aerosols
16:45 – 18:00		Existing atmosphere infrastructure - ideas and input for better utilization and further developments, SIOS Optimization report (S. Hudson, R. Krejci)

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*WG progress overview (15 + 5 min)*

*Overview of the Work Groups activities, results and publications since last workshop in Kjeller 2016. Identification of important themes for discussion during the workshop and for collaboration across individual WGs*

## **TUESDAY, 16 October**

### **Overviews and Outside of Ny Ålesund (Chair: T. Zielinski & Ch. Ritter)**

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09:00 – 09:15	Luca Ferrero (University of Milano-Bicocca)	Experimental heating rate of black and brown carbon from mid-latitudes to the Arctic ocean: results from AREX2018 oceanographic cruise
09:15 – 09:30	Paulina Pakszyz (IOPAN)	Ongoing long-term record of ship-borne AOD over Svalbard archipelago
09:30 – 09:45	Piotr Soboloweski, (IGF-PAN)	UV measurements at the Polish Polar Station, Hornsund. Results from 2017.
09:45 – 10:00	Changsup Lee (KOPRI)	Upper atmospheric observations by KOPRI in Arctic region
10:00 – 10:15	Young Jun Yoon (KOPRI)	Atmospheric monitoring programs of KOPRI in Ny-Alesund:
10:15 – 10:30		Discussion
10:30 – 11:00		<i>Coffee break</i>
11:00 - 11:15	Alena Dekhtyareva (UiT)	Effect of seasonal mesoscale and microscale meteorological conditions in Ny-Ålesund on results of monitoring of long-range transported pollution
11:15 – 11:30	Grzegorz Karasinski, (IGF- PAN)	Preliminary results of the analysis of the inflow of air masses to the area of Hornsund fjord for the years 2005-2017
11:30 – 11:45	Sandro Dahlke (AWI)	The observed recent surface air temperature development across Svalbard and concurring footprints in local sea ice cover
11:45 – 12:00	Alexander Schulz (AWI)	Kongsfjord vs. Isfjord: a two-site flux measurement comparison within the joint German-Russian QUARCCS project
12:00 – 13:00		Discussion

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13:00 – 14:00 *Lunch*

## **Aerosol & Clouds, (Chair Y. Tobo & P. Zieger)**

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14:00 – 14:15	Konstantinos Eleftheriadis (NCSR Demokritos)	Volatility study on the state of mixing of nucleation mode atmospheric particles in the high Arctic
14:15 – 14:30	Tymon Zielinski (IOPAN)	Study Of Aerosol Properties During Long-Range Transport Of Biomass Burning Particles Over Svalbard In Summer 2017
14:30 – 14:45	Jan Henneberger (ETH Zurich)	Microphysical observations of mixed-phase clouds with holographic imagers using tethered balloons and cable cars
14:45 – 15:00	Yutaka Tobo (NIPR)	Recent progress and perspectives in ice nucleation studies at Ny-Ålesund, Svalbard
15:00 – 15:30		<i>Coffee break</i>
15:30 – 15:45	Tatiana Nomokonova (University of Cologne)	Status update of the project SYNCLOUD at AWIPEV
15:45 – 16:00	Baladima Foteini (IGE)	Arctic precipitation: observed trends and changes at Ny-Alesund, Svalbard
16:00 – 16:15	Paul Zieger (SU)	Aerosol-cloud interactions at Zeppelin observatory
16:15 – 17:30	Discussion	

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17:30 – 18:30 Atmospheric flagship SSC meeting

## **WEDNESDAY, 17 October**

### **BC and aerosol airborne and remote sensing** (*Chair: A. Viola & Y.J. Yoon*)

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09:00 – 09:30	Barbara Altstädter, (TU Braunschweig) & Martin Schön (University of Tubingen)	Horizontal and vertical variability of aerosol particles observed in the atmospheric boundary layer with UAV: A late spring study in Ny-Alesund 2018
09:30 – 09:45	Birgit Wehner & Holger Siebert (TROPOS)	Aerosol, turbulence and radiation measurements on a tethered balloon
09:45 – 10:00	Marco Zanatta (AWI)	The fate of Arctic black carbon from clouds to snow
10:00 – 10:15	Cristian Velasco (University of Valladolid)	Continuous columnar aerosol observations at Ny Ålesund with Sun-Sky-Lunar photometry and possible future synergies.
10:15 – 10:30	Chiara Petroselli (University of Perugia)	Climatology of Black Carbon vertical profiles measurements in Ny-Alesund between 2011 and 2017

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10:30 – 11:00 *Coffee break*

### **Snow & Ice** (*Chair L. Zhou, J.C. Gallet*)

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11:00 - 11:15	Hans-Werner Jacobi (IGE – CNRS/Uni. of Grenoble)	Deposition of ionic species and black carbon to the Arctic snow pack: Combining snow pit observations with modelling
11:15 – 11:30	Andrea Spolaor (CNR-IDPA)	Are the climate archive preserved in Svalbard ice threatened?
11:30 – 11:45	Jean Pierre DEDIEU (IGE- CNRS)	Snow physical parameters retrieval using SAR data and in-situ measurements in Brøgger Peninsula
11:45 – 12:00	Kjetil Torseth (NILU)	Black carbon in the arctic - in-situ observing systems
12:00 – 12:15	Kjetil Torseth (NILU)	WG7: Atmospheric composition
12:15 – 13:00	Discussion	

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13:00 – 14:00 *Lunch*

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**MOSAiC** (Chair H.C-Hansson, S. Hudson)

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14:00 - 14:20	Annja Sommerfeld (AWI)	MOSAIC International Arctic Drift Expedition
14:20 – 14:40	Marion Maturilli (AWI)	MOSAIC – Activities of the Atmosphere Team
14:40 – 15:00	Julia Boike (AWI)	T-MOSAiC
15:00 – 15:30	Q&A MOSAIC – Discussion	
15:30 – 16:00	<i>Coffee break</i>	
16:00 – 17:30	MOSAiC & Ny Ålesund & Atmospheric flagship	

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***Join dinner (detail info will follow)***

**THURSDAY, 18 October: DISUSSIONS & TOPIC MEETINGS**

09:00 – 10:00 Vertical measurements in Ny Alesund: discussion about UAV and balloon activities in 2018 and future plans (*B. Wehner*)

10:00 – 11:00 Marine aerosols and ship based observations (*T. Zielinski*)

11:00 – 11:30 *Coffee break*

11:30 – 11:45 Andreas Massling (University of Aarhus)      Activities at Villum Research Station in North Greenland

11:45 – 13:00 Ny Ålesund & Gruvbadet & Villum 2019-2020 (*A. Massling, K. Torseth*)

13:00 – 14:00 *Lunch*

14:00 – 15:30 Mini-seminar on SIOS core data (remote connection with SIOS office) and discussion about Atmospheric core data and SIOS Optimization report

15:30 – 16:00 *Coffee break*

16:00 – 16:45 “BC and mineral dust in air and snow surface layers” (*D. Cappelletti*)

16:45 – 17:30 Gruvbadet snow supersite (*J.C. Gallet*)

17:30 – 18:00 Ny Ålesund “Metrology lab” (*V. Vitale*)

18:00 – 18:30 30 years anniversary Zeppelin article (*K. Torseth*)

**FRIDAY, 19 October**

09:00 – 10:00 SESS report & SIOS optimization report (*A. Viola, H.C. Hansson*)

10:00 – 10:30 Join actions at Barentsburg & air pollution on Svalbard

10:30 – 11:00 *Coffee break*

11:00 – 12:00 Meteorology – aerosols – clouds 3D studies (*C. Ritter*)

## POSTERS

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Paul Zieger (SU)	The importance of coarse mode aerosol in the Arctic
Boris Ivanov (AARI)	AARI spring-summer field company 2017-2018 (Barentsburg, Aldegonda glacier)
Linn Karlsson (SU)	Aerosol-cloud interactions at Zeppelin observatory
Dmitry Divine (NPI)	Event-based observations of stable water isotopes in precipitation in NyÅlesund to support interpretation of Svalbard ice core data
Chiara Petroselli (University of Perugia)	Diesel power plants in Svalbard: underestimated contributors to the local air pollution (C. Petroselli, A. Dekhtyareva)
Piotr Markuszewski (IOPAN)	Observation of air-sea interaction phenomena on board r/v Oceania.
Konstantina Nakoudi (AWI)	Optical properties of Arctic aerosol during PAMARCMIP 2018 campaign
Srinath Krishnan (SU)	Evaluating the impact of atmospheric aerosols on Arctic Amplification

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### Venue

The venue will be at the Albert Einstein Science Park in Potsdam. To get to Potsdam you fly into Berlin. Berlin, Potsdam and Brandenburg established a cooperation of their public transportation system called the Verkehrsverbund Berlin Brandenburg (VBB): [www.vbb.de/en/index.html](http://www.vbb.de/en/index.html) The webpage provides details on the connection from/to the airports Berlin-Tegel (TXL) and Berlin-Schönefeld (SXF), as well as Berlin Central Station. Public transport from the airports to Potsdam requires an 'ABC-Ticket' for 3.40 €. The workshop will take place in the central facilities (Building H) of the Albert Einstein Science Park on the hill Telegrafenberg in Potsdam.

### Contact persons

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