



10th Ny-Ålesund Seminar

25- 26 October 2011, Kjeller, Norway

The Ny-Ålesund Seminar is supported
by the Norwegian Research Council



08:00- 09:00	Registration
08:50-09:00	Welcome by Paal Berg, Dept. Director of NILU
09:00-09:05	Info / Logistics
Atmospheric Research Chair: Roland Neuber	
09:05-09:30	Atmospheric Research in Ny-Ålesund - a flagship programme Roland Neuber, Johan Ström, and Christiane Hübner
09:30-09:45	Chemical size distributions and bulk composition of Arctic aerosol sampled at Ny Ålesund G. Calzolari, S. Becagli, C. Ghedini, F. Rugi, D. Frosini, S. Nava, M. Chiari, F. Lucarelli, R. Traversi, R. Udisti
09:45-10:00	The Eyjafjallajökull eruption: Chemical characterisation of the ash plume at Spitsbergen M. Kriews, I. Stölting, D. Wilhelms-Dick
10:00-10:15	In-situ cloud measurements performed at Zeppelin Station in May-June 2011 M. Shiobara, A. Uchiyama, A. Yamazaki, and H. Kobayashi
10:15-10:45	Coffee break
10:45-11:00	Long term mercury measurements at Zeppelin Mountain Katrine Aspmo Pfaffhuber and Torunn Berg
11:00-11:15	20 Years Climatology of NO₃⁻ and NH₄⁺ wet deposition at Ny-Ålesund, Svalbard R. Kühnel, T. Roberts, M. Björkman, W. Aas, E. Isaksson, K. Holmen, and J.Ström
11:15-11:30	SUVEX: Crusise-ship SO₂ emissions in Ny-Ålesund measured with imaging cameras Kerstin Stebel, Fred Prata, Are Bäcklund, and Ove Hermansen
General session Chair: Roland Neuber	
11:30-11:45	Joint Russian-Norwegian investigations of long-term climate variability on West Spitzbergen. Svyashchennikov P.N., Fjørland E., Popov A.V., Ivanov B.V.
11:45-12:00	Activities of Czech research team in central part of Svalbard Tomáš Tyml, Josef Elster, Oleg Ditrich
12:00-13:00	Lunch
General session, cont. Chair: Maarten J.J.E. Loonen	
13:00-13:25	The idea behind the Ny-Ålesund Flagship Programmes Kim Holmen
13:25-13:40	Svalbard Science Forum and the Research in Svalbard (RiS) database Christiane Hübner
13:40-13:55	The SIOS Project: The basic idea and current status Georg Hansen and Karin Refsnes
Terrestrial Flagship session Chair: Maarten J.J.E. Loonen	
14:00-14:25	Terrestrial Flagship Maarten J.J.E. Loonen
14:25-14:40	Top down control in terrestrial arctic ecosystems Maarten J.J.E. Loonen & Jouke Prop
14:40-14:55	Key functions and microorganisms driving organic carbon transformation in high Arctic Peatlands of Svalbard Svenning, Mette M., Vigdis L. Torsvik, Christiane Graef, Alexander Tveit, Anne Grethe Hestnes, Tim Urich and Peter Frenzel
14:55-15:10	Molecular identification of arctic moss species for ecosystem and biodiversity studies M. Stech, B. Cornelder, E.W. Kolvoort, C.B. Mennes, S. Veldman, J.D. Kruijjer
15:10 -16:10	Poster session
Kongsfjord System Flagship session Chair: Geir Wing Gabrielsen	
16:10-16:35	Kongsfjord system flagship Geir Wing Gabrielsen
16:35-16:50	Oceanographic timeseries, particle fluxes and seabed mapping into inner Kongsfjord, W Spitsbergen (Svalbard Archipelago) Aliani S., Del Bianco F., Gasperini L., Giglio F., Langone L., Miserocchi S.
16:50-17:05	The significance of depth and substrate inclination for sublittoral hard bottom community structure in glacial Kongsfjorden (Svalbard, Arctic) – an underwater imagery approach J. Laudien and J.-B. Orchard
17:05-17:20	EPOCA 2010 mesocosm CO₂ enrichment experiment in Arctic waters Ulf Riebesell, Michael Meyerhöfer, Jean-Pierre Gattuso and the 2010 Svalbard team
17:20-17:35	Polar seabirds in a changing environment: A mechanistic approach Sabrina Tartu, Aurélie Goutte, Frédéric Angelier, Céline Clément-Chastel, Børge Moe, Claus Bech, Jan Ove Bustnes, Geir Gabrielsen, Olivier Chastel
17:35 –18:35	Discussion on instrumentation needs for a Climate Supersite Ny-Ålesund (SIOS) Georg Hansen and all

Atmospheric session: part II - Chairs: Kim Holmen / John F Burkhart

08:30-08:50	CICCI/VAUUV John F Burkhart, Timothy S Bates, Patricia Quinn, Rune Storvold, Andreas Bodo Herber, Vito Vitale, Sergey Lesenkov
08:50-09:05	Exploring the relation between Black Carbon and precipitation using observed concentrations in air at the Zeppelin station and model derived precipitation. Johan Ström, Peter Tunved, and Radovan Krejci
09:05-09:20	High resolution meteorological measurements on Kongsvegen glacier (Svalbard) F. Karner, F. Obleitner, F. Bilgeri and J. Kohler
09:20-09:35	Vertical profiles of aerosol properties and ozone measured over Ny-Ålesund during spring and summer 2011 L. Ferrero, D. Cappelletti, B. Moroni, V. Vitale, R. Udisti, M. Busetto, C. Lanconelli, M. Mazzola, A. Lupi, S. Becagli, R. Traversi, D. Frosini, M. Maturilli, R. Neuber, C. Ritter, J. Graeser, M. Fierz, G. Mocnik and E. Bolzacchini
09:35-09:50	Properties of Arctic Haze derived by remote sensing over Ny-Ålesund C. Ritter, M. Stock, A. Hoffmann, A. Herber, and R. Neuber
09:50-10:05	Characterization of the boundary layer structure in Ny Alesund – Svalbard: the first two years of measurements at the Amundsen Nobile Climate Change Tower (CCT) Viola A. P., I. Pietroni, F. Tampieri, M. Mazzola, C. Lanconelli, S. Argentini, L. Diliberto, and M. Busetto
10:05-10:30	Coffee break
10:30-10:45	Measured and modelled aerosol scattering coefficient at Ny-Ålesund, retrieval of real refractive index V. Vitale, R. Udisti, M. Busetto, C. Lanconelli, M. Mazzola, A. Lupi, S. Becagli, D. Frosini, C. Ghedini
10:50-11:05	Effects of relative humidity on aerosol light scattering in the Arctic P. Zieger, R. Fierz-Schmidhauser, M. Gysel, J. Ström, S. Henne, K. E. Yttri, U. Baltensperger, E. Weingartner
11:05-11:20	xxxxx x
11:20-11:35	Controlled Meteorological Balloons launched from Ny-Ålesund Lars R. Hole, Anniken C. Mentzoni, Tjarda Roberts, and Paul Voss
11:35-11:50	The OPTIMISM project (observing dynamical and thermodynamical processes impacting the sea-ice mass balance from in situ measurements). Current status and future plans. Vivier F, Lourenco A, Bouruet-Aubertot P, Beauverger M, Cuyper Y, Dausse D, Eymard L, Gascard J-C, Jardon F, Martin N Weill A, Dechambre M, Bonnefoy F, Ferrant P Gentaz L, Rousset J-M, Alessandrini B, Loislil R, Amarouche N, Barrois H, and Panel J-M
11:50-13:10	Lunch and poster session
Kongsfjord system / Glaciology Flagship - Chair: Jack Kohler	
13:10-13:35	Glaciology Flagship Jack Kohler
13:35-13:50	Daily and seasonal glacier velocity change on Kronebreen, Svalbard, as measured using FORMOSAT-2 imagery and in situ continuous GPS Jack Kohler ; Etienne Berthier; Carleen H. Reijmer; Christopher Nuth
13:50-14:05	Characterisation of AIRborne Microbial Communities Fritz A., Sattler B., Tilg M., Psenner R.
14:05-14:20	Data issues in a moving environment: remote and in situ tools to monitor glacier dynamics and their hydrological consequences in the Austre Lovèn breen basin (Spitsberg 79°N). Florian Tolle, Eric Bernard, Jean-Michel Friedt, Albane Saintenoy, Christelle Marlin, Madeleine Griselin
14:20-14:35	Hydrological and geochemical approach to understand the glacier-permafrost subglacial-system interactions in a glaciated catchment of Western Spitsbergen Christelle Marlin, Emerick Delange, Madeleine Griselin, Mélanie Quenet, Eric Bernard, Jean-Michel Friedt and Florian Tolle
14:35-15:00	Coffee break
15:00-15:15	Local and spatial variability of snow characteristics at Kongsvegen glacier, Svalbard F. Bilgeri, W. Steinkogler, F. Karner, F. Obleitner, R. Fromm and J. Kohler
15:15-15:30	Ground based interferometric radar data of Kronebreen calving front, Svalbard. C. Rolstad Denby , R. Gundersen, and R. Norland
15:30-15:45	Lipids in the Cryosphere Birgit Sattler, Helga Reicher, Michaela Schober, Wolfgang Sattler

Poster presentation

Using Unmanned Aerial Systems for Climate and Environmental research in Ny-Ålesund Stian Solbø and Rune Storvold
Bipolar climatology of ionospheric scintillation at solar minimum Lucilla Alfonsi, Luca Spogli, <u>Giorgiana De Franceschi</u> , Vincenzo Romano, Marcio Aquino, Alan Dodson, Cathryn N. Mitchell
Eddy Covariance measurements in Ny-Ålesund, Svalbard, Norway Georg Jocher, Christoph Ritter, Roland Neuber, Klaus Dethloff, and Thomas Foken
Mercury in the European Arctic: what do we know from observations in Ny-Ålesund, Svalbard? Torunn Berg, Lars R. Hole, Katrine Aspomo Pfaffhuber and Anne Orderdalen Steen
Meteorological Profiling of the Arctic Boundary Layer <u>Marion Maturilli</u> , Jürgen Graeser, Klaus Dethloff, Moritz Mielke, and Annette Rinke
Climatology of Surface Radiation and the Meteorological Column - Longterm Observations in Ny-Ålesund Marion Maturilli, Siegrid Debatin, Andreas Herber, Gert König-Langlo, and Roland Neuber
Distribution and budget of reactive nitrogen compounds (NO_x) in European high Arctic: atmospheric effects and air-snow interactions <u>F. Spataro</u> , A. Ianniello, R. Salvatori, G. Esposito and M. Valt
Performance of CryoWing UAS as a platform for repeat measurements of surface reflectance <u>Wiley Bogren</u> , John Burkhart, Stian Solbø, and Rune Storvold
Water soluble compounds in Ny Alesund aerosols. Roberta Zangrando, Clara Turetta, Elena Barbaro, Piero Zennaro, Natalie Kehrwald, Jacopo Gabrieli, Andrea Gambaro, Alberto Marcellini, and Carlo Barbante
Atmospheric Aerosol at the Svalbard Islands in Year 2010. Elemental Mass Size Distributions from Size-Segregated Samples: (I) Sea-Salt Componets P. Mittner, <u>D. Ceccato</u> , P. Sartori, M. Masiol, B. Pavoni, V.Vitale, A. Lupi, M. Busetto, S. Becagli, and R. Udisti
Atmospheric Aerosol at the Svalbard Islands in Year 2010. Elemental Mass Size Distributions from Size-Segregated Samples: (II) Sulphur Compounds P. Mittner, <u>D. Ceccato</u> , P. Sartori, M. Masiol, B. Pavoni, V.Vitale, A. Lupi, M. Busetto, S. Becagli, R. Udisti
Atmospheric Aerosol at the Svalbard Islands in Year 2010. Elemental Mass Size Distriutions from Size-Segregated Samples: (III) Crustal Elements and Minor Elements P. Mittner, <u>D. Ceccato</u> , P. Sartori, M. Masiol, B. Pavoni, V.Vitale, A. Lupi, M. Busetto, S. Becagli, R. Udisti
Emerging persistent organic pollutants in arctic air, surface water and snow in Ny-Alesund, Svalbard Zhiyong Xie, Axel Möller, Guangcai Zhong, Zhen Zhao, Catherine Larose, Renate Sturm, Aurélien Dommergue, Ralf Ebinghaus
Temperature and atmospheric stability in Ny-Alesund: 1990 to 2010 T.J. Roberts and W. Tych
Preliminary results on snow surface reflectance and its dependence on grain size studies at Ny Ålesund R. Salvatori, <u>C. Lanconelli</u> , M. Busetto, A. Mei, M. Valt, and V. Vitale
Middle energy neutron spectrometer with narrow diagram of acceptance Yu. V. Balabin, E. A. Maurchev
CLUES FOR NEOGENE-QUATERNARY TECTONICS IN SVALBARD P. Cianfarra, and F. Salvini
Isotopic Signatures of Soil Organic Carbon and its Relation to Vegetation in a Successional Glacier Foreland in Ny-Ålesund, Svalbard Miyuki KONDO, Masao UCHIDA, Masaki UCHIDA, Toshiyuki OHTSUKA, Shinpei YOSHITAKE, Hiroshi KANDA, Hiroshi KOIZUMI and Takayuki NAKATSUBO, Yasuyuki Shibata
Evidence of Heterotrophic Microbial Decomposition of Preaged Carbon in Arctic soil; Insights from molecular level natural radiocarbon analysis of phospholipid fatty acids (PLFAs) Masao Uchida, Miyuki Kondo, Masaki Uchida, Yoshiyuki Takahashi, Motoo Utsumi, Hidetoshi Kumata, Yasuyuki Shibata
Long-term monitoring of Kongsfjorden fast ice Pavlova, O., Gerland, S. and Moe, B.
A study of Kongsfjorden fast ice evolution using a one-dimensional model Wang, C., Wang, K., Gerland, S., Cheng, B., and Pavlova, O.
A Digital Glacier Database for Svalbard <u>Max König</u> , Christopher Nuth, Jack Kohler, Geir Moholdt and Rickard Pettersen
Microbial and Chemical Variability in, and Elution from, a High Arctic Glacial Snow Pack. <u>Jakub Zarsky</u> , Mats P. Björkman, J. Rafael Kühnel, Elisabeth Isaksson, Andy Hodson, Birgit Sattler, Roland Psenner
Laser Induced Fluorescence Emission (L.I.F.E.): In Situ Non-Destructive Detection of Microbial Life on Supraglacial Environments in the Kongsfjord <u>Birgit Sattler</u> , Markus Tilg, Michael Storrie-Lombardi, Roland Psenner