CATCH Workshop Program

Wednesday - 19 April 2017

8:00	Coffee and Registration	
Session 1: Welcome and intorduction to CATCH		
9:00	What is CATCH?	Jennie Thomas
9:10	The International Global Atmospheric Chemistry (IGAC) Project (1.008)	Megan Melamed
9:20	CATCH in the context of SOLAS (1.033)	Alfonso Saiz-López
9:30	Science Community Input for CATCH (1.055)	Markus Frey
Session 2 - Aerosols and clouds, Chair: Jen Murphy, Notes: James France		
9:45	Overview - Aerosols and clouds in the cold regions	Jen Murphy
10:00	What are the sources of ice nucleating particles in the high latitudes? (1.068)	Ben Murray
10:15	Arctic aerosol measurements and transport in the frame of the Ice-Atmosphere-Ocean Observing System (IAOOS) project (1.046)	Claudia Di Biagio
10:30	Coffee	
11:00	Black Carbon and Aerosol Chemistry at high-altitude site in the central Himalayas (1.026)	Kipra Ram
11:15	Blowing snow-Aerosol Interactions: Composition Changes during Blowing Snow Events in Antarctica (1.039)	Michael Giordano
11:30	Sea Salt Aerosol from Blowing Snow above Sea Ice – observed evidence of a missing source (1.054)	Markus Frey
11:45	The Problem with Arctic Clouds (1.047)	Jo Browse
12:00	**Lunch and poster session (I)**	
	Can we use field data and models to constrain laboratory measurements of nitrate photochemistry in/on ice? (1.029)	Cort Anastasio
	Central Antarctica as a source of atmospheric mercury for lower latitude ecosystems (1.065)	Aurélien Dommergue
	Characterization of the chemical, physical and optical properties of atmospheric aerosols in the Canadian High Arctic (1.040)	Samantha Tremblay
	Cross-polar transport and scavenging of Siberian aerosols containing black carbon during the 2012 ACCESS summer campaign (1.032)	Jean-Christophe Raut
	Trace gas and aerosols emissions from boreal wildfires and impact on atmospheric pollution in the Arctic (1.067)	Solene Turquety
	International Collaborations: The Arctic Council's Impacts on Background Concentrations of SLCF's in the Arctic (1.038)	Michael Giordano
	Release of photochemical bromine from blowing snow events in high latitudes (1.045)	Paul Griffiths
	sea ice-ocean-atmosphere biogeochemistry at ICM-CSIC (1.041)	Manuel Dall´Osto
	Sensitivity of Arctic mixed-phase clouds to micro- and macrophysical changes (1.024)	Gesa Eirund
	Spectroscopic Characterization of Anisole at the Air-ice Interface: Distribution of Organic Pollutants on the Ice Surface (1.049)	Pablo Corrochano Diaz
Session 2 - Aerosols and clouds (continued)		
14:00	Evidence for marine-biogenic influence on summertime Arctic aerosol (1.014)	Megan Willis
14:15	Simultaneous observation of precursor vapours, clusters and new particle formation in Antarctica (1.044)	Tuija Jokinen
14:30	Discussion	Jen Murphy
Session 3 - Biogeochemistry and biology, Chair: Manuel Dall'Osto, Notes: Jen Murphy		
14:45	Overview of biogeochemistry and biology	Manuel Dall´Osto
15:00	How do interfacial exchange rates of biogeochemical process-related trace gases trigger the Arctic climate system? (BGC in MOSAiC) (1.066)	Ellen Damm
15:15	Lessons learned from multi-disciplinary research in the cryosphere using mercury as a case study (1.052)	Catherine Larose
15:30	Discussion	Manuel Dall´Osto
15:45	Coffee	
Session 4 - Halogens, ozone, and mercury, Chair: Alfonso Saiz-López, Notes: Markus Frey		
16:15	Overview - Halogen, ozone, mercury cycles in cold regions	Alfonso Saiz-López
16:30	Quantitatively relating air mass history and meteorology to boundary layer ozone depletion events over the Arctic Ocean (1.069)	John Halfacre
16:45	125,000 year bromine variability in connection to Arctic sea ice in the Renland ice core (1.007)	Niccolò Maffezzoli
17:00	Polar boundary layer bromine explosions and ozone depletion in the global chemsitry climate model EMAC (1.020)	Björn-Martin Sinnhuber
17:15	Understanding the climate sensitivity of the snow source of reactive halogens (1.036)	Becky Alexander
17:30	Hierarchy of models for improving the understanding of snow and ice chemistry and its interactions with atmospheric chemistry in the Arctic (1.060)	Kenjiro Toyota
17:30	Conference cocktail reception & dinner at LATMOS	

Thursday - 20 April 2017		
8:00	Coffee	
Session 4 - Halogens, ozone, and mercury (continued)		
8:45	Snowpack Molecular Halogen Production in the Springtime Arctic (1.061)	Kerri Pratt
9:00	Understanding the Impact of Biomass Burning on Ozone Conditions in the Arctic (1.059)	Audra McClure-Begley
9:15	Discussion	Alfonso Saiz-López
Session 5 - Surface processes and ice, Chair: Cort Anastasio, Notes: Megan Willis		
9:30	Overview of snow/ice and surface processes	Cort Anastasio
9:45	In situ real-time measurements of key trace gases in ice-core and oceans (1.025)	Roberto Grilli
10:00	The Arctic hydrosphere-cryosphere complex: a dynamic nexus of biogenic dimethylsulfide production during summer (1.021)	Martine Lizotte
10:15	Coffee	
10:45	HONO over polluted mid-latitude snow (1.056)	Jochen Stutz
11:00	Discussion	Cort Anastasio
Session 6 - Fundamentals of chemistry in cold regions, Thorsten Bartels-Rausch, Notes: Jochen Stutz		
11:15	Overview of fundamentals related to chemistry in cold regions	Thorsten Bartels-Rausch
11:30	Speciation and location of impurities on ice characterized via spectroscopy and microscopy (1.042)	Dominik Heger
11:45	Halogen activation over snow and ice doped with NaBr aerosols (1.019)	Jacinta Edebeli
12:00	Discussion	Thorsten Bartels-Rausch
12:15	**Lunch and poster session (II)**	
	Intrinsic chemical reaction between iron oxide and iodide in ice and its environmental impacts (1.006)	Kitae Kim
	Air-snow exchange of nitrogen oxides and ozone at a polluted mid-latitude site (1.053)	Jen Murphy
	Heterogeneous Oxidations of Oxy-PAHs in the Environment (1.028)	Marcelo Guzman
	Tracing the origin of black carbon deposition over the Greenland ice sheet to forest fires in Canada (1.064)	Jennie Thomas
	Evaporating brine from frost flowers with electron microscopy: implications for atmospheric chemistry and sea-salt aerosol formation (1.030)	Xin Yang
	Development of the Finse Alpine Research Station towards a platform for multi-disciplinary research on Land-Atmosphere Interaction in Cold Environments (LATICE) (1.072)	John Burkhart
	Long Term Ecological Research at the Lautaret Station: the FluxAlp project (1.071)	Didier Voisin
	Marine Aerosol Production and Chemical Composition in the Arctic (1.062)	Kerri Pratt
	Multiphase atmospheric chemistry in cold regions (1.048)	Faye McNeill
	The polar iodine paradox (1.034)	Alfonso Saiz-López
	Hunting liquid micro-pockets and quasi-liquid layers of ice in presence of salt or acidic trace gases :: X-ray spectroscopy (1.010)	Thorsten Bartels-Rausch
	On the measurement of gas phase halogenated species (1.058)	Xucheng He
Session 7 - Project overviews and facilities, Chair Anna Jones, Notes: Kerri Pratt		
14:15	CATCH activities at British Antarctic Survey field research platforms? (1.027)	Anna Jones
14:30	air Pollution in the Arctic: Climate Environment and Societies (PACES) (1.043)	Kathy Law
14:40	I3CE: Vision for collaborative, international, interdisciplinary study of ice chemistry in the environment (1.050)	Faye McNeill
14:50	Highlights from NETCARE (Network on Climate and Aerosols: Addressing Key Uncertainties in Remote Canadian Environments) (1.051)	Jen Murphy
15:00	Coffee	
15:30	Research opportunities at Villum Research Station in North Greenland for climate relevant studies. A new research infrastructure (1.063)	Niels Bohse Hendriksen
15:40	Bringing BEPSII to CATCH (1.018)	James France
15:50	International Arctic Systems for Observing the Atmosphere (IASOA) A System Science Consortium (1.057)	Taneil Uttal
16:00	An Overview of the Roland von Glasow Air-Sea-Ice Chamber: Bringing the Arctic to the Laboratory (1.009)	James France
16:10	Summit Station research opportunities	John Burkhart
16:20	Discussion	Anna Jones
Session 8 - Defining future directions for CATCH, Chair: Jennie Thomas, Notes: Megan Melamed		
16:40	Discussion: Defining future directions for CATCH	Jennie Thomas
17:40	Thanks & final word from meeting sponsors IGAC, SOLAS, and PARCS	Megan Melamed, Alfonso Saiz-López, & Kathy Law