

Update on Arctic Flux Workshop Planning

Eugénie Euskirchen

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UNIVERSITY OF HELSINKI



Circum-Polar Flux Workshop will be held in Hyytiälä, Finland on 6-9 February 2017. The workshop is open to all scientists interested in detailed observations of energetic, hydrological and chemical fluxes at the surface-atmosphere interface and how these may be used to understand and model the Arctic climate system. The Workshop is bringing professional and scientific experts together under research themes related to biogeochemistry, surface energy balance, atmospheric sciences, permafrost, hydrology, modeling, and remote sensing to help coordinate and synthesize polar flux data and models as an integrated systems of energy, moisture and chemical exchange.

The official language of the Workshop will be English.

The host of the conference is the PEEX HQ, University of Helsinki, Finland
<https://www.atm.helsinki.fi/peex>

Contacts

For questions about the workshop
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Key dates

Registration opens:

September 2016

Registration deadline: 15 January 2017

Workshop dates:

6-9 February 2017

<http://www.atm.helsinki.fi/peex/index.php/circum-polar-arctic-flux-workshop>

International Organizing Committee

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First Circular: Circum-Arctic Flux Workshop

February 7 - 9, Hyytiälä Forestry Research Station, Finland

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Tentative Agenda

February 7, Morning: Flux Measurements in the Arctic: Challenges and Outcomes

- Overview of flux measurements around the circum-arctic
- Technical issues and newest techniques
- Error analysis, gap-filling, partitioning
- Ancillary measurements

February 7, Afternoon: Process-Based Understanding

- Drivers of flux
- Most sensitive versus most resilient systems
- Links with subsurface observations (permafrost, hydrology)
- Links with aquatic systems
- Closure experiments (energy balance, carbon balance)
- Importance of Long-term measurements

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Agenda cont.

February 8, Morning: *Top Down versus Bottom Up Approaches*

- What can be provided from eddy flux measurements to models & vice versa?
- Upscaling
- Model initialization issues for the Arctic
- Observational needs for modeling and upscaling
- Energy fluxes
- Statistical scaling
- Remote sensing

February 8, Afternoon: *Synthesis*

February 9, Morning

Group discussion on moving forward and synthesis continued

IASOA: How can IASOA contribute from the energy balance side

- Energy balance closure

- Seasonal changes in albedo

- Which variables from energy flux observations are most important to synthesize for model-data comparisons?

- What can be done pre-workshop with respect to this general topic?

Other activities. How to keep momentum?

North American Carbon Program Meeting, late March 2017 in Bethesda, MD

Breakout session proposal concerning the synthesis activities discussed at the Finland workshop, as they pertain to North American (with Ted Schuur)

Other spring meetings: International Conference on Arctic Science: Bringing Knowledge to Action (Reston, VA, USA, April 2017) and at the 2017 Arctic Science Summit Week (Prague, Czech Republic, April 2017)