

# 66<sup>th</sup> Annual Eastern Snow Conference 9-11 June 2009

White Oaks Resort and Conference Centre, Niagara-on-the-Lake

## PRELIMINARY AGENDA

### Tuesday 9 June 2009

6:00 pm Registration  
7:00 pm Ice breaker buffet reception  
8:00 pm ESC Executive Meeting

### Day 1: Wednesday 10 June 2009

Breakfast

8:30 am Welcome

#### Glaciers

8:40 am Lyman Glacier, A Century of Change  
**M.S. Pelto**

9:00 am The recessions of the Pasterze Glacier, Austria as seen on maps, satellite imagery and measured through ground truthing from 1864 to 2008  
**K. Bayr and D. Hall**

9:20 am Elevation Change of Drangajökull Ice Cap, Iceland, from Repeat ICESat Profiles and GPS Ground-Survey Data  
**C.A. Shuman et al.**

9:40 am An assessment of MODIS snow cover data for mapping permanent snow and ice  
**A. P. Barrett et al.**

10:00 Coffee Break

#### Trends in snow cover extent and accumulation

10:40 am Observed Controls on the Northern Hemisphere Snow-Albedo Feedback  
**R. Fernandes and H. Zhao**

11:00 am Integrated pan-Arctic melt onset detection from satellite scatterometer and radiometer measurements  
**L. Wang et al.**

11:20 am Land surface Thermodynamic Response to Snow Depth Variability  
**Y. Ge and G. Gong**

11:40 am Poster Presentations: 1 minute per poster

12:00 noon Lunch

### Remote sensing of snow

- 1:00 pm Validation of a prototype passive microwave snow water equivalent algorithm for tundra environments using IPY field measurements  
**P. Toose et al.**
- 1:20 pm Retrieval of Snow Water Equivalent (SWE) using *in-situ* meteorological data and thermodynamic snow models  
**A. Langlois et al.**
- 1:40 pm Snow radiance assimilation: a snow LSM model study  
**E. Kim et al.**
- 2:00 pm Fractional snow cover estimation in complex alpine-forested environments using Ikonos/QuickBird, Landsat and MODIS  
**E. H. Czyzowska and K. Hirschboeck**
- 2:20 pm TBD
- 2:40 pm Coffee Break

### Sea Ice

- 3:10 pm Satellite C- and X-band radar observations of seasonal changes of snow and ice properties over a saline lake  
**C. Haas et al.**
- 3:30 pm The links between melt duration and sea ice conditions within the Canadian Arctic Archipelago  
**S. Howell et al.**
- 3:50 pm Backscatter measurements of ice and snow on Toolik Lake, Alaska, using a portable microwave radar  
**H.P. Marshall and C. Duguay**
- 4:10 pm Monitoring Seasonal Freeze and Thaw Processes using High-Frequency Ground Penetrating Radar  
**C. Steelman et al.**
- 4:45 pm Featherstone Winery Tour
- 7:00 pm ESC Banquet

## Day 2: Thursday 11 June 2009

Breakfast

### Winter storms and observations

- 8:30 am Winter weather indices: strategic tools for managing winter road maintenance operations  
**J. Andrey et al.**
- 8:50 am Winter Storms in the Carolinas and Virginia: A Coupled Approach for Conceptualizing and Forecasting Event Type and Precipitation Intensity  
**C. Fuhrman and C.E. Konrad II**

9:10 am	Parametrization of Wind Induced Preferential Deposition of Snow <b>R. Dadic et al.</b>
9:30 am	A Summary of Snow Cover Observations from Six Years of Pre-Melt in-situ Surveys within a 625 km <sup>2</sup> Tundra Basin <b>A. Rees et al.</b>
9:50 am	Coffee Break
<b>Measurement</b>	
10:20 am	Measurement of Snowfall by Environment Canada Surface Networks <b>J. MacPhee</b>
10:40 am	Investigating the accuracy of in-situ solid precipitation measurements through the usage of multiple co-located snow depth sensors <b>A. Fischer</b>
11:00 am	Characterization of Snow and Firn using Micro-CT and SEM <b>I. Baker et al.</b>
11:20 am	Flexible Sleds for the South Pole Heavy Traverse <b>J.H. Lever et al.</b>
11:50 am	Lunch
<b>Models</b>	
1:00 pm	Snow Surface Roughness During Snowmelt on Byers Peninsula, Antarctica <b>S.R. Fassnacht and M. Toro Velasco</b>
1:20 pm	Mixed effects regression for snow distribution modeling <b>A. Kasurak et al.</b>
1:40 pm	Sensitivity Analysis of Snow Processes in the Forest: UEbMOD Snow Model: SnowMIP2 <b>R. Hellstrom</b>
2:00 pm	Regional assessment of the contribution of rain-on-snow events to NO <sub>3</sub> -N export in a forested landscape <b>Eimers et al.</b>
2:20 pm	Validation, assessment and refinement of the NASA AMSR-E Snow Water Equivalent Product <b>M. Tedesco et al.</b>
2:20 pm	End
2:30 pm	Coffee
3:00 pm	ESC Executive Meeting

## **POSTER PRESENTATIONS**

AMSR-E passive microwave brightness temperatures for snow properties retrieval compared with in-situ measurements across a boreal forest to taiga transect in Québec.

***A. Langlois et al.***

On the relationship between snow grain morphology and in-situ near infrared calibrated reflectance photographs.

***A. Langlois et al.***

The 2009 Ground Passive and Active Snow (GAPS) Experiment.

***M. Tedesco et al.***

Supraglacial Lakes over the Greenland Ice Sheet from Visible and NIR Satellite Data: from data visualization to volume change analysis analysis.

***M. Tedesco et al.***

Representativeness of Snow Depth Sampling in a Pyrenees Mountain Valley, Spain.

***J.I. López-Moreno et al.***

Evaluation of the AFWA-NASA Blended Snow-Cover Product over the Lower Great Lakes region.

***D.K. Hall et al.***

Structural evolution from snowflakes to bonded spheres observed using SEM and micro-CT.

***S. Chen and I. Baker***

Temperature effects on depth-hoar formation and grain-chain orientation in dry snow metamorphism.

***S. Chen et al.***

Assessing satellite remote sensing observations of snow accumulation in the Yukon Territory, Canada, during the International Polar Year.

***R. Kelly and A. Kasurak***

Seasonal development of snow and sea ice properties on Miquelon Lake, a saline lake in Alberta.

***J. Beckers et al.***

Potential for increasing accuracy of snow cover area, and SWE estimates across boreal forests using MODIS and AMSR-E data.

***G. Riggs et al.***

Variability of Spring Snow Cover over Western Canada and Its Relationship to Temperature and Circulation Anomalies.

***Z. Bao et al.***

Perception of winter in Canada through La Presse newspaper (1959-2006).

***J. Toupin and R. Langevin***

Winter Storms: An Overlooked Source of Death, Destruction, and Inconvenience in the Southeast United States.

***C.M. Fuhrman et al.***

Active Microwave Wavelet-Based Approach For Snowmelt Detection Over Antarctic Ice Shelves.  
**N. Steiner and M. Tedesco**

Temporal Variations in Land Surface Temperatures of Lambert Glacier-Amery Ice Shelf System (LGAIS).  
**Z. Chi**

Continuous daily snow cover estimates over the Northern Hemisphere between 1982-2004. Methods, validation and trends.  
**R. Fernandes and H. Zhao**

Using a temperature-based model of snow accumulation and melt to assess the long-term hydrologic behaviour of forested headwater basins in south-central Ontario.  
**J. Buttle**

Snow Cover Depletion Analysis of the Cache la Poudre River, Colorado in Anticipation of Snowmelt Runoff Modeling.  
**E. Richer et al.**

Improved Subgrid Scale Modeling of Surface Energy Balance over Snow.  
**J. Weatherly**

Artificial Neural Networks Approach to Fractional Snow Cover Mapping.  
**I. Dobрева and A. Klein**

Canopy Interception-Evaporation Response to Climate in a Northern Hardwood Forest.  
**R. Melloh and J. Campbell**

GMON, a new sensor for snow water equivalent via gamma monitoring.  
**Y. Choquette et al.**

The Development of a Platform for Deploying Ground-Based Passive Microwave Radiometers in Remote Study Regions.  
**A. Rees**

Toward a snow GIS of the Eastern Township, Quebec, Canada.  
**R. Fortier**

Organic contaminants in agricultural snowpacks, Northwestern Iowa.  
**A. Klein et al.**

Towards validation of RADARSAT-2 data and snow on first-year sea ice parameterization.  
**C. Fuller and M. Peters**

Estimating fractional snow cover from MODIS in northern Canada  
**L. Wang et al.**