

Session A49: Extratropical and High-Latitude Storms: Synoptic-Scale Perspective and Linkage to Large-Scale Climate Variability, Change, and Impact

American Geophysical Union (AGU) 2008 Fall Meeting  
15-19 December 2008  
San Francisco, California

Abstract Submission Deadline:  
10 September 2008, 2359 UT (Universal Time)

Abstracts can be submitted online at:  
<http://submissions3.agu.org/submission/entrance.asp>

Session Description:

Storms bring extreme weathers to the extratropical and polar regions, and are directly responsible for the major high-wind events, big ocean waves and surges, coastal flooding and erosion, and rapid temperature changes. Shift of storm track and intensification of storm activity may also leave fingerprints on or contribute to large-scale climate variability and change through altered or strengthen synoptic-scale atmosphere-ice-ocean interactions associated with storms. This session will continue to provide a platform to present new progresses of the studies on the extratropical and high-latitude storm activity from synoptic-scale analysis to its upscale/integrative linkage to climate variability and change, as well as associated ecosystem- and societal impacts. Specifically, the following topics fit this session well: detection of interannual-to-decadal variability and long-term changes of storm activity in observations and in model simulations; projections of possible future conditions; exploration of underlying physical mechanisms, examination of anthropogenic forcing impacts on the storm activity; investigation of storm impacts on atmosphere-ice-ocean interactions and the associated role in climate variability and change; comparison of storm identification and tracking methodologies; and statistical analysis and model simulation of extreme weather associated with storm events. Studies of storm-induced severe weather systems, on storm dangers and damages, such as big ocean waves, storms surges and erosion as well as impacts of storm activity on coastlines, ecosystem and society in the extratropical and polar regions are also welcome.

Conveners:

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