International Symposium on

Timescales, Processes and Glacier Dynamics

Hotel Lafayette
Buffalo, New York, USA
3–8 June 2018

Co-sponsored by:

☆ National Aeronautics and Space Administration (NASA)
☆ US National Science Foundation (NSF)
☆ Center for Geohazards, University at Buffalo
☆ Department of Geology, University at Buffalo

FIRST CIRCULAR
July 2017
http://www.igsoc.org/symposia/2018/buffalo
The International Glaciological Society will hold an International Symposium on ‘Timescales, Processes and Glacier Dynamics’ in 2018. The symposium will be held at the Lafayette Hotel in downtown Buffalo, New York, USA on 3–8 June 2018.

THEME
The physical processes controlling glacier dynamics form the basis of modern glaciology. In spite of the rapid growth in observational data, the ultimate scientific challenge continues to be relating processes to observations. Time-series data are essential to understanding processes; however, their analysis often reveals processes operating on timescales ranging from diurnal to millennial. Individual processes may underpin long-term glacier stability, promote instability or drive natural variability in the glacier state. For example, gravitationally driven flow is among the most fundamental processes in glaciology and controlled by ice-surface slope and thickness. The evolution of the ice surface, in turn, reveals processes related to the mechanical controls on ice flow, firn compaction, development of supraglacial meltwater flow networks, basal melt, isostasy and surface mass balance. Each of these processes alters the surface elevation and is characterized by a different timescale. Assessment of the processes producing changes over a particular time interval poses a major challenge. Hence, even routinely acquired data are difficult to reason about. Interpretation of other data, such as surface velocity, climatological data, radar stratigraphy, glacier history, ice core records, paleoclimate proxies and in situ observations, are also confounded by relations between processes and timescales.

SUGGESTED TOPICS
We seek papers and presentations that advance the understanding of ice sheets and glaciers and glacier dynamics on different timescales. Key focus areas include (but are not limited to):

1. Identification of processes that exert significant control on glacier dynamics
2. Differentiation of processes that are manifestations of natural variability from those that are critical to glacier stability
3. Attribution of physical processes to observations
4. Analyses of data that reveal processes operating on a characteristic timescale
5. Models of processes that help identify the timescales they operate on
6. Characterization of glaciological processes giving rise to hazards such as sea level rise to glacial outburst floods
7. Linking paleoclimate research on timescales of 100–10 000 years to contemporary observations or models of glaciers.
PROGRAM
True to tradition, the symposium will include oral and poster sessions interlaced with ample free time to facilitate the interactions of the participants. Additional activities include an opening icebreaker, a banquet dinner and a trip to Niagara Falls during the mid-symposium afternoon break. A pre- or post-symposium glacial geology and landscape excursion is also planned.

ABSTRACT AND PAPER PUBLICATION
Participants who wish to present a paper (oral or poster) at the Symposium will be required to submit an abstract by 1 February 2018. Accepted abstracts will be posted on the Symposium’s website. The Council of the International Glaciological Society will publish a thematic issue of the Annals of Glaciology on topics consistent with the Symposium themes. Participants are encouraged to submit manuscripts for this Annals volume.

SYMPOSIUM ORGANIZATION
Magnús Már Magnússon (International Glaciological Society).

SCIENCE STEERING AND EDITORIAL COMMITTEE
Co-chairs: Jesse Johnson (University of Montana) and Cornelis van der Veen (University of Kansas). Scientific Editors include: Joel T. Harper (University of Montana) and Toby Meierbachtol (University of Montana) Further editors will be announced as they are appointed.

LOCAL ORGANIZING COMMITTEE
Beáta Csathó (University at Buffalo (UB); Chair), Jason Briner (UB), Kristin Poinar (NASA/GSFC), Ted Scambos (National Snow and Ice Data Center), Elizabeth Thomas (UB).

VENUE
The symposium will be held at the Lafayette Hotel in downtown Buffalo, in the heart of Buffalo’s brewery district and within a mile of historic Canalside on Lake Erie. The magnificent historical hotel was designed by the first professional female architect in the US, Louise Blanchard Bethune, and built in 1904, during Buffalo’s industrial heyday. It is located minutes from Shea’s Performing Arts Center, Coca-Cola Field and the First Niagara Center. There are excellent restaurants just a short walk away and several hotels within walking distance.
LOCATION
Early summer in Buffalo is consistently pleasant, with warm weather on most days. ‘The City of Good Neighbors’ is home to about 259,000 Buffalonians, with over 1.13 million residents in the surrounding Buffalo–Niagara Falls metropolitan area. Indeed, it is the second-largest metropolitan area in New York State.

By the late 19th/early 20th century, the burgeoning grain, steel, and automobile industries had transformed Buffalo into a prominent trade center. Some of the greatest examples of the American architecture of this period, as well as Frederick Law Olmsted’s Buffalo Park system, make Buffalo an exciting destination. Buffalo is also home to the world’s oldest fireboat, the third-oldest Zoo in the USA, the historic site of Theodore Roosevelt’s Inauguration Ceremony and the Anchor Bar – the birthplace of the Buffalo chicken wing. The redeveloped waterfront of the former Erie Canal Harbor, Canalside, is a popular destination, with hundreds of events in the summer, including concerts, artisan markets and countless other activities. Located just 17 miles north-northwest of the city is Niagara Falls, one of the most popular tourist sites in the world, famed for its beauty and as a source of hydroelectric power.

FURTHER INFORMATION
If you wish to attend the symposium, please register your interest online at http://www.igsoc.org/symposia/2018/buffalo/
The Second Circular will give further information about accommodation, the scientific programme, additional activities, preparation of abstracts and final papers. Members of the International Glaciological Society, as well as all those who have pre-registered, will automatically receive the Second Circular. Information will also be updated on the IGS conference website, http://www.igsoc.org/symposia/2018/ buffalo/ as it becomes available. A local website will open later in 2017.