



INTERNATIONAL GLACIOLOGICAL SOCIETY

International Symposium on
Glacial Erosion and Sedimentation

IGS2019

**Glacial Erosion
and Sedimentation**

MADISON, WISCONSIN, 12–17 May 2019

Pyle Center
Madison, Wisconsin, USA
12–17 May 2019

Co-sponsored by:

- ❄ Department of Geoscience, University of Wisconsin-Madison
- ❄ Wisconsin Geological and Natural History Survey

FIRST CIRCULAR
December 2017

<http://www.igsoc.org/symposia/2019/madison>

The International Glaciological Society will hold an International Symposium on 'Glacial Erosion and Sedimentation' in 2019. The symposium will be held at the Pyle Center in downtown Madison, Wisconsin, USA on 12–17 May 2019

THEME

Since the last IGS symposium on glacial erosion and sedimentation in Reykjavik in 1995, techniques for characterizing these processes and their associated landscapes and sediments have improved markedly. Diverse remote-sensing techniques measure subaerial and submarine landforms at extraordinarily high resolution, and geophysical methods reveal evolving subglacial landscapes and processes. New and refined geochronological techniques better constrain rates of erosion and deposition. Increased computer power allows models that address coupled processes of glacier flow, bedrock erosion, sediment transport and tectonic change over long time and length scales. New field and laboratory methods provide insight into the mechanics and kinematics of sediment-transport processes and their manifestations in glacial sediments.

Interesting and stubbornly enduring questions accompany these advances. How can glacial sediments and landforms inform us about glacier dynamics and how are glacier dynamics modulated by sediment-transport processes? How can large-scale models of glacial landscape evolution better approximate the small-scale processes that drive erosion and sediment transport? How can past climate variability be inferred from glacial sediments and landforms? How have rates of glacial erosion and sedimentation changed through time? How are drumlins and other subglacial bedforms sculpted, and what data can provide definitive hypothesis tests?

SUGGESTED TOPICS

We seek papers and presentations on processes and products of glacial erosion and sedimentation and their relationships to glacier dynamics. Key focus areas include (but are not limited to):

1. Processes and patterns of glacial erosion, sediment transport and deposition
2. Glacial history and dynamics, as inferred from sediments and landforms
3. Sediment transport feedbacks on glacier dynamics
4. Models of glacial landscape evolution
5. Rates of glacial erosion and sedimentation
6. Origins of glacial landforms
7. Geophysical studies of glacial landforms and subglacial processes
8. Climate signals of glacial sediments
9. Hazards associated with glacial sedimentation and erosion.

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 will include an opening icebreaker, a banquet dinner and a trip to the Kettle Moraine region during the mid-symposium afternoon break.

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 12 January 2019. 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: Neal Iverson (Iowa State University) and Lucas Zoet (University of Wisconsin-Madison).

Scientific Editors: David Egholm, Gwenn Flowers, Neal Iverson, Mark Johnson, Chris Stokes, Martin Truffer, Lucas Zoet.

LOCAL ORGANIZING COMMITTEE

Lucas Zoet, Dave Mickelson, Elmo Rawling, Shaun Marcott, Carrie Jennings and Urs Fischer.

VENUE

The symposium will be held at the Pyle Center in downtown Madison, on the shores of Lake Mendota. The Pyle Center is just blocks from State Street, where there are numerous eating venues, and is less than a five minute walk from the Memorial Union Terrace, which has a lakeside sitting area and beer garden.

LOCATION

Madison is the second largest city in Wisconsin with a population of more than 208 000 people, and is surrounded by the classic geomorphology of the Green Bay Lobe of the Laurentide ice sheet.

The city is the home of the University of Wisconsin–Madison and the State Capitol and offers a large array of activities. Most of downtown Madison sits on an isthmus between Lake Mendota and Lake Monona. The University's Memorial Union is located on Lake Mendota and serves as a popular gathering place for people to socialize and listen to live music. State Street, the heart of downtown Madison, is alive with activity every day. Connecting the Capitol to the University, State Street features specialty shops, art galleries, cafes and restaurants, theatres, museums and more than 200 shops.

Madison is commonly considered the bike capital of the Midwest with over 100 miles of bike paths, including paths to the Pyle Center. B-cycle stations are located throughout the city for hourly or daily bike checkout.

FURTHER INFORMATION

If you wish to attend the symposium, please register your interest online at <http://www.igsoc.org/symposia/2019/madison/>

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/2019/madison/> as it becomes available. A local website will open in 2018.