

# Discovering Ancient to Modern Earth *Découvrir la Terre Ancienne à Moderne*



## *First Circular* **Sudbury 2023 GAC-MAC-SGA Joint Annual Meeting** **24-27 May 2023**

The geoscience community is invited to attend the **Geological Association of Canada – Mineralogical Association of Canada – Society for Geology Applied to Mineral Deposits Joint Annual Meeting** to be held in Sudbury, Ontario, Canada, **May 24-27, 2023**, with pre- and post-meeting workshops and field trips.

Sudbury is one of the world's oldest (~1.8 Ga), largest, and best-exposed meteorite impact sites on Earth, hosts one of the world's premiere Ni-Cu-PGE mining districts, and is surrounded by a wide range of superbly exposed Archean, Proterozoic, Paleozoic and Quaternary rocks.

The City of Greater Sudbury, the largest city in northeastern Ontario, lies amidst glacially-shaped ridges, green boreal forests, and contains 330 lakes > 10 hectares and 110 lakes > 100 hectares. The success of more than 40 continuous years of environmental reclamation efforts has led to numerous national and international awards, including a Government of Canada, *Environmental Achievement Award*, a United States, *Chevron Conservation Award*, and a United Nations, *Local Government Honours Award*.

### **Meeting Theme**

The theme of the meeting is **Discovering Ancient to Modern Earth**, reflecting the location of Sudbury at the intersection of the Archean Superior Province, Proterozoic Southern and Grenville Provinces, and Paleozoic-Quaternary cover sequences. The conference will include an exceptionally diverse program of **Symposia, Special Sessions, General Sessions, Field trips, Workshops, and Short Courses** covering the complete spectrum of geoscience disciplines.

The meeting will be delivered in hybrid format with both in-person and virtual components. Abstracts, talks, and posters can be given in English or French.

### **Hosts and Sponsors**

The meeting is being hosted by the *Harquail School of Earth Sciences* and *Mineral Exploration Research Centre* at Laurentian University, and is being sponsored by the *Geological Association of Canada*, the *Mineralogical Association of Canada*, and the *Society for Geology Applied to Mineral Deposits*.

### **Meeting Venue**

The meeting will be held on the Laurentian University campus. Technical sessions will be in the **Fraser Auditorium** and **Classroom Buildings**. Posters and exhibit booths will be held in the **Parker Atrium**. Workshops and Short Courses will be held in the Harquail School of Earth Sciences in the **Willet Green Miller Centre**, which is across the road from the Fraser Complex, and which also houses the *Ontario Geological Survey*, the *Ontario Geoscience Laboratories*, and several other mineral and mining research centers.

## Meeting Format

There will be three days of technical sessions, including plenary, invited, and volunteered oral presentations, dedicated times for posters, pre- and post-meeting field trips, and workshops.

<b>21-24 May 2023</b>	Pre-meeting field trips, workshops, and short courses
<b>24 May 2023</b>	Late afternoon registration, evening Icebreaker
<b>25-27 May 2023</b>	Morning and early afternoon oral sessions, late afternoon poster sessions
<b>28 May – 01 June 2023</b>	Post-meeting field trips, workshops, and short courses

## Provisional Registration Fees

Registration fees will be finalized in December when the budget is approved, but are expected to be similar to previous meeting and will include lunches (see **Meals** below). Field trip, workshop and short course fees will also be finalized in December.

Registration category	Early on-site	Late on-site	Virtual
Professional (member)	\$500	\$600	\$400
Professional (non-member)	\$600	\$700	\$500
Student or Retired (member)	\$150	\$200	\$100
Student or Retired (non-member)	\$250	\$300	\$200
Day (member)	\$250		N/A
Day (non-member)	\$300		N/A
Guest	\$50		N/A

plus 13% HST

## Abstracts

On-line abstract submission details will be provided in the *Second Circular*. The early (**\$40**) abstract deadline will be **01 February 2023**. The late (**\$60**) abstract deadline will be **01 March 2023**.

*Abstracts will be accepted only from authors who register for the conference and present their work in person or virtually in either poster or oral form. Submission of an abstract implies a commitment to attend the meeting and the abstracts of authors who do not subsequently register will not be included in the abstract volume.*

## Technical Program

### Association/Division Lectures

- A01 - GAC Presidential Address** (Alwynne Beaudoin)
- A02 - GAC Logan Medalist** (TBA)
- A03 - GAC-CSRSG Middleton Medalist** (Brian Pratt)
- A04 - GAC-MDD Derry Medalist** (TBA)
- A05 - GAC-MDD Gross Medalist** (TBA)
- A06 - MAC Peacock Medalist** (TBA)
- A07 - MAC Young Scientist Award** (TBA)

### Symposia

- SY01 - Critical Minerals in Canada**, Chairs: Evan Hastie (OGS), Eric Potter (GSC), Rob Cundari (OGS), Marcus Burnham (OGS)
- SY02 - Crustal Architecture and Metal Endowment**, Chairs: Ross Sherlock (MERC-HES/LU), Bruno Lafrance (MERC-HES/LU), Stéphane Perroudy (MERC-HES/LU)
- SY03 - Magmatic Ore Deposits Associated with Mafic - Ultramafic Systems: A Symposium Honouring Dr. Sarah-Jane Barnes**, Chairs: Michel Houlié (GSC), Sarah Dare (UQAC)

**SY04 - Orogenic Gold Deposit Metallogeny: A Symposium Honouring Dr Benoît Dubé**, Chairs: Jochen Kolb (KIT), Georges Beaudoin (U Laval), Iain Pitcairn (Stockholm U), Nicolas Thébaud (UWA)

**SY05 - Sudbury Impact Structure**, Chairs: Gordon Osinski (Western U), Michael Leshar (MERC-HES/LU)

### **Special Sessions**

**SS01 - Advancements in Canadian Deep-Water Research**, Chairs: Lilian Navarro (Cape Breton U), Vittorio Maselli (Dalhousie U), Elisabeth Steel (Queen's U)

**SS02 - Advances in Isotope Sciences**, Chairs: Dan Layton-Matthews (Queen's U), Matt Leybourne (Queen's U), James Kidder (GSC)

**SS03 - Advances in Marine Geology and Geodynamics and their Application to Understanding Ancient Metallogenic Terranes**, Chairs: Erin Bethell (U Ottawa), Chris Galley (U Ottawa), Alan Baxter (U Ottawa), Mark Hannington (U Ottawa)

**SS04 - Advances in the Study of Accretionary Tectonics in the Paleozoic: From the Appalachians to Zagros**, Chairs: Deanne van Rooyen (Acadia University) et al.

**SS05 - Advances in VMS Deposits: Genetic Models and Approaches to Mineral Exploration**, Chairs: Frank Santaguida (Glencore), Harold Gibson (MERC-HES/LU)

**SS06 - All that Glitters is Cold: Advances in Quaternary Glacial Investigations**, Chairs: Jessey Rice (GSC), Tyler Hodder (MGS), Riley Mulligan (OGS)

**SS07 - Anything but Boring: the Grenville Orogeny a Key into Mesoproterozoic Geodynamics**, Chairs: Aphrodite Indares (Memorial U), Caroline Lotout (Memorial U / CNRS)

**SS08 - Archean Craton Assembly**, Chairs: Antoine Godet (Laval U), Carl Guilmette (Laval U), Doug Tinkham (MERC-HES/LU)

**SS09 - Canadian Journal of Earth Sciences at 60: Celebrating Canadian Geoscience and Geoscientists**, Chairs: Sally Pehrsson (GSC), Brendan Murphy (SFX)

**SS10 - Cratons, Kimberlites, and Diamonds**, Chairs: Thomas Stachel (U Alberta), Yana Fedortchouk (Dalhousie U), Maya Kopylova (UBC), Graham Pearson (U Alberta)

**SS11 - Environmental Aspects of Mine Waste**, Chairs: Ian Power (Trent U), Sasha Wilson (U Alberta), Matthew Lindsay (U Sask)

**SS12 - Environmental Restoration: Lessons from Sudbury's Recovery and Beyond** Chairs: Nadia Mykytczuk (GSM/LU), Graeme Spiers (GSM/LU)

**SS13 - Geobiology of the Late Archean to Early Paleoproterozoic Surface World and its Impacts on Proterozoic Evolution**, Chairs: Kurt Konhauser (U Alberta), Jamie Robbins (U Regina), Mike Babechuk (Memorial U)

**SS14 - Geophysics of Mineral Systems**, Chairs: Richard Smith (MERC-HES/LU), Callum Walter (Queen's U), Hema Sharma (Western U), Rajesh Vayavur (MERC-HES/LU)

**SS15 - Geoscience Education and Communication**, Chairs: Lesley Hymers (Mining Matters), Deana Schwarz and Veronica Klassen (APGO Education Foundation), Beth McLarty Halfkenny (Carleton U / Canadian Federation of Earth Sciences)

**SS16 - Impact Processes on Solar System Bodies: A Special Session in Memory of Erin Walton**, Chairs: Gordon Osinski (Western U), Christy Caudill (Western U)

**SS17 - Integrated Studies in Paleozoic Basins: Life, Environments, Resources**, Chairs: Nikole Bingham-Koslowski (GSC), Michelle Coyne (GSC)

**SS18 - Iron-rich Au, Ag, Bi, Co, Cu, F, Mo, Nb, P, Pb, REE, U, Zn, PGE Mineralization: Genetic Processes and Feedback Mechanisms between Magmatism and Metasomatism**, Chairs: Wyatt Bain (Lakehead U), Louise Corriveau (GSC), Jean-Francois Montreuil (MacDonald Mines / Red Pine Expl)

**SS19 - Isotopes in Ore Deposits and their Utilization in Exploration**, Chairs: Bertrand Rottier (U Laval), Crystal Laflamme (U Laval), Guillaume Barré (U Laval), Georges Beaudoin (U Laval)

**SS20 - Lithium in Pegmatites: Mineralogy, Petrogenesis and Classic to Innovative Exploration Techniques**, Chairs: Tania Martins (Manitoba Geological Survey), Axel Muller (Natural History Museum, Oslo), Joana Cardoso-Fernandes (U of Porto / ICT), Encarnacion Roda-Robles (U Basque Country), Lee Groat (UBC)

**SS21 - Mineral Exploration Footprints**, Chairs: Stéphane Perrouy (MERC-HES/LU), Kevin Ansdell (U Sask), Robert Lee (MDRU/UBC)

**SS22 - New Insights on Cordilleran Magmatism and Tectonics: from Rifted Margin to Continental Arc Systems**, Chairs: Rosie Cobbett (Memorial U / YGS), Luke Beranek (Memorial U), Justin Strauss (Dartmouth U), David Moynihan (YGS)

**SS23 - On the Beam: Advances and Applications in In-Situ Microanalysis and Geochronology**, Chairs: Jeff Marsh (MERC-HES/LU)

**SS24 - Optimizing Geological, Environmental, and Social Criteria for Exploration in the Arctic**, Chairs: Anna Bidgood (iCrag/UCD), Brendan Dyck (UBC-Okanagan), Philip Rieger (iCrag/UCD), John Thompson (PetraScience Consultants)

- SS25 - Precambrian Depositional and Environmental Systems**, Chairs: Maxwell Lechte (McGill U), Nabil Shawwa (Carleton U), Mollie Patzke (MERC-HES/LU)
- SS26 - Rare Metals in Igneous Systems**, Chairs: Zsuzsanna Magyarosi (GSNL), Nadia Mohammadi (GSC), Zeinab Azadbakht (OGS), Tarryn Cawood (GSC), Anne-Aur lie Sappin (GSC)
- SS27 - Spectroscopic Mineral Analysis**, Chairs: Philip Lypaczewski (CNA), Derek Wilton (CNA / Memorial U), Gary Thompson (CNA)
- SS28 - Subsurface Energy Storage in Geologic Media: Hydrogen, CAES, and CO<sub>2</sub>-Sequestration: Preparing for New Energy Economy**, Chairs: Frank Brunton (OGS), James Brydie (NRCan Canmet-Devon), Nick Utting (NRCan Canmet-Devon), Nirmal Gnanapragasam (Canadian Nuclear Labs)

### General Sessions

- GS01 - Economic Geology**, Chair: Daniel Gregory (U Toronto), Merilie Reynolds (NWTGS)
- GS02 - Environmental Geology**, Chair: TBA
- GS03 - Geochemistry, Geochronology**, Chair: Steve Piercey (Memorial U)
- GS04 - Geophysics**, Chair: Richard Smith (MERC-HES/LU), Hema Sharma (Western U), Rajesh Vayavur (MERC-HES/LU), Callum Walter (Queen's U)
- GS05 - Geoscience Education**, Chair: Tobias Roth (MERC-HES/LU)
- GS06 - Hydrogeology**, Chair: TBA
- GS07 - Igneous and Metamorphic Geology, Volcanology**, Chair: Doug Tinkham (MERC-HES/LU)
- GS08 - Indigenous Engagement**, Chair: TBA
- GS09 - Mathematical Geology**, Chair: Cliff Stanley (Acadia U)
- GS10 - Mineralogy, Crystallography**, Chair: Andrew Conly (Lakehead U), Shannon Zurveniski (Lakehead U)
- GS11 - Paleontology**, Chair: Nikole Bingham-Koslowski (GSC), Katie Maloney (McGill U)
- GS12 - Planetary Geology**, Chair: Gordon Osinski (Western U)
- GS13 - Sedimentology, Stratigraphy**, Chair: Max Lechte (McGill U), Nabil Shawwa (Carleton U)
- GS14 - Structural Geology, Tectonics**, Chairs: Deanne van Rooyen (Acadia U)

### Field Trips

- FT01 - Base, Critical, and Precious Metals Mineralization in the Metasomatic Iron and Alkali-Calcic Systems of the Southern Province in the Sudbury Area**, Leaders: Jean-Francois Montreuil (MacDonald Mines / Red Pine Expl), Louise Corriveau (GSC), Wyatt Bain (Lakehead U), Sponsor: MacDonald Mines, Duration: **2 days**
- FT02 - Discovering the Abitibi Gold Belt**, Leaders: St phane Perrouy (MERC-HES/LU), Ross Sherlock (MERC-HES/LU), Sponsor: MERC, Duration: **4 days**
- FT03 - Geological Traverse of the Sudbury Impact Structure and Evolution of the Impact Melt**, Leaders: Dustin Peters (MERC-HES/LU), Sandra Baurier-Aymat (MERC-HES/LU), Shirley Peloquin (OGS), Caroline Gordon (OGS), Sponsor: MERC, Duration: **1 day**
- FT04 - Geology of Manitoulin Island**, Leaders: Frank Brunton (OGS), Catherine B land Otis (OGS), Katherine Hahn (OGS), Sponsor: OGS, Duration: **2 day**
- FT05 - Ice on the Rocks: Quaternary Geology of the Sudbury Region**, Leaders: Andrea Marich (OGS), Riley Mulligan (OGS), Abigail Burt (OGS), Grant Hagedorn (OGS), Sponsor: OGS, Duration: **1 day**
- FT06 - Multiscale and Polyphase Deformation Structures in the Grenville Front Tectonic Zone near Sudbury**, Leaders: Dazhi Jiang (Western U), Changcheng Li (U Waterloo), Sponsor: Western U, Duration: **1 day**
- FT07 - Noranda and Swayze Volcanology and Hydrothermal Ore Deposits**, Leaders: Harold Gibson (MERC-HES/LU), Thomas Gemmel (OGS / MERC-HES/LU), Taus J rgensen (MERC-HES/LU), Evan Hastie (OGS), Sponsor: MERC, Duration: **4 days**
- FT08 - Paleoproterozoic Glacial, Microbially Induced, Tidal, and Seismic Deposits of the Huronian Supergroup, Elliot Lake Region, Canada**, Leaders: Patricia Corcoran (Western U), Carolyn M. Hill-Svehla (Western U), Sponsor: Western U, Duration: **3 days**
- FT09 - Sudbury Offset Dikes and Associated Ni-Cu-PGE Mineralization**, Leaders: Henning Seibel (MERC-HES/LU), Michael Leshner (MERC-HES/LU), Sponsor: MERC, Duration: **3 days**
- FT10 - Orogenic and Intrusion-Related Gold Deposits of the Michipicoten and Mishibishu Greenstone Belts in the Wawa Region, with an Emphasis on the Structural Framework**, Leaders: Chong Ma (MERC-HES/LU), Lianna Vice (OGS / MERC-HES/LU), Sponsor: MERC, Duration: **3 days**

### Workshops

- W01 - Curriculum Connections, Educator Professional Learning (K-12)**, Leaders: Lesley Hymers (Mining Matters), Deana Schwarz (APGO Ed Foundation), Veronica Klassen (APGO Ed Foundation), Sponsor: Mining Matters/APGO/EdGEO/CGED, Duration: **1 day**

- W02 - Environmental Remediation: Sudbury's Award-Winning Reclamation and Remediation Story**, Leaders: Nadia Mykytczuk (GSM/LU), Graeme Spiers (GSM/LU), Sponsor: Goodman School of Mines, Duration: **2 days** (*workshop and field trip*)
- W03 - Iolite 4: Advances in LA-ICPMS Data Processing and Visualization**, Leaders: Jeff Marsh (MERC-HES/LU), Joe Petrus (MERC-HES/LU), Sponsor: MERC, Duration: **1 day**
- W04 - Ore Microscopy**, Leaders: Simon Kocher (CSM), Tobias Fusswinkel (RWTH Aachen), Sponsor: SGA, Duration: **2 days**
- W05 - Orogenic Gold Deposits**, Leaders: Jochen Kolb (KIT), Georges Beaudoin (U Laval), Iain Pitcairn (U Stockholm), Nicolas Thébaud (UWA), Sponsor: SGA, Duration: **1 day**
- W06 - Reflectance Spectroscopy for Mineral Exploration**, Leaders: Philip Lypaczewski (CNA), Derek Wilton (CNA / Memorial U), Gary Thompson (CNA), Sponsor: CNA, Duration: **1 day**

### Short Courses

- SC01 - Fundamentals and Applications of Hydrogeochemistry**, Leaders: Matt Leybourne (Queen's U), Rob Howell (SRK), James Kidder (GSC), Sponsor: MAC, Duration: **2 days**
- SC02 - Mineral Prospectivity Mapping**, Leader: Jeff Harris (MERC-HES/LU), Sponsor: MERC, Duration: **1 day**

### Social Program

There will be an *Icebreaker* in the **Vale Cavern at Science North** on the evening of May 24, a public outreach event will be organized on May 25 at **Dynamic Earth**, and late-afternoon *Poster Sessions* on May 25-27. Details will be provided in the *Second Circular*.

### Accompanying Guest Program

Depending on weather and interest, a variety of activities are planned for accompanying guests. Transportation costs will be nominal. Entrance/rental fees and lunches in restaurants will not be included.

**Ramsey Lake Waterfront** (winner of a 1992 international *Excellence on the Waterfront* award): A visit to the **Sudbury Art Gallery**, a walk along the waterfront through **Bell Park** and along the **Boardwalk**, a visit to the multiple award-winning **Science North** museum and **3D Imax** theatre complex, and a tour of **Lake Ramsey** on a 70-passenger **Cruise Boat** will be proposed.

**Kayaking on Lake Ramsey**: If there is sufficient interest, we can also arrange kayaking on Lake Ramsey, which used to be listed by the *Guinness Book of World Records* as the largest lake (~8 km<sup>2</sup>) located entirely within the boundaries of a single city. However, when the Regional Municipality of Sudbury was amalgamated into the current City of Greater Sudbury in 2001, this status was transferred to Lake Wanapitei, which fills an 8.4 km diameter, 37 Ma-old, meteorite crater located near the Sudbury Airport. Kayaks will be rented from the **Northern Watersports Centre**.

**Killarney Provincial Park**: The park contains numerous crystal-clear (deep blue on clear days) lakes set amongst white quartzite ridges and glacially-sculpted pink granites and syenites. It is widely regarded as one of the most beautiful parks in Canada and was the subject of several paintings by the *Group of Seven* Canadian landscape artists in the 1920s. There are several options for hikes ranging from short (1 hour) and easy (requiring only sturdy walking shoes) to long (3-4 hours) and moderate-strenuous (requiring sturdy hiking boots), but none will be technically difficult. There may also be time for a refreshing dip in Killarney Lake (cool) or Georgian Bay (very cool). The hike will be followed by late-afternoon fish and chips at the world-renowned *Herbert Fisheries* in the waterfront village of Killarney.

**AY Jackson Lookout**: Hiking and lunch (*brown bag*) at AY Jackson Lookout in Onaping Falls, 45 km WNW of Sudbury on the rugged North Range of the Sudbury Basin. The 50 m water cascade facing the lookout is the site of the painting "*Spring on the Onaping River*" by Jackson, who was a member of the *Group of Seven*. There are several hiking trails of various lengths, an information center, and a self-guided geological tour through a collection of very large samples of Sudbury rocks and ores.

**Lake Laurentian Conservation Area**: There are many hiking trails in the 950-hectare Lake Laurentian Conservation Area, which surrounds Laurentian University and extends around the south of Lake Ramsey, ranging from short to long, and flat to rugged.

**Dynamic Earth**: Science North's sister attraction contains an underground mine, a wide range of Earth Science exhibits, a giant high-definition movie theatre, and – a must-see for anyone visiting Sudbury – the 9 m diameter "Big Nickel" (listed in the *Guinness Book of World Records* as the world's largest coin). A public mineral identification event will be held here during the conference, where mineral kits put together by MAC will be distributed.



## Transport

Sudbury is ~400 km north of Toronto and ~450 km northwest of Ottawa. Depending on your budget and the amount of time you have, there are four travel options: **air** (Air Canada, Bearskin, Porter), **train** (VIA rail – *once per week*), **bus** (Ontario Northland), and **car** (~4.5 hrs from Toronto, ~5.5 hrs from Ottawa).

A **Shuttle Service** will be operated between South End hotels (e.g., Hampton Inn/Homewood Suites, Comfort Inn, Super 8, Holiday Inn, Travelodge, Travelway Inn), downtown hotels (e.g., Radisson, Northbury), and the Laurentian University campus during the meeting. Details will be provided in the *Second Circular*.

## Accommodation

Laurentian University is located ~4 km southeast of downtown Sudbury. Blocks of rooms have been reserved at several local hotels, some of which are located fairly near the university, some of which are a bit further but closer to the “Four Corners” commercial area, and some of which are located in downtown Sudbury. All of the listed hotels have private bathrooms, most serve continental or hot breakfasts and/or have adjacent coffee shops/restaurants, and some have indoor swimming pools. The rooms will be held until March/April 2023.

Accommodation will also be available in the Residences at Laurentian University.

Additional information is provided on the meeting website: <https://event.fourwaves.com/Sudbury2023/>.

**NOTE:** Sudbury hosts many large sporting events during the summer, so participants should make sure that they book their accommodation as early as possible.

## Meals

Attendees will be responsible for their own breakfasts and dinners. Because the Laurentian University campus is not close to restaurants, registration fees include catered box and/or BBQ lunches. Provisions will be made for those with dietary restrictions.

## Internet and E-Mail Access

Wireless access to internet is available for free everywhere on the LU campus. Most hotels also provide wired and/or wireless access to the internet, but visitors should verify this with their hotel before booking.

## Medical

Sudbury Regional Hospital is a major medical and emergency service center with an emergency room within 5 minutes of Laurentian University. Visitors should assume that they will have to pay all medical costs immediately and should be properly insured. Temporary medical insurance can normally be arranged through your airline company at a reasonable cost. Most pharmacies are open 7 days a week, but only between 09:00 am and 11:00 pm.

## Weather

The days in Northern Ontario in late May are moderately long with the sun rising at 05:40 am and setting at 09:00 pm. Temperatures range between 9 °C and 18 °C and are rarely below 3 °C or above 25 °C. Sudbury is one of the sunniest cities in Canada, but afternoon thunderstorms are common in the summer. A rain parka and hat are recommended for those attending field trips or hikes, and a light umbrella is recommended for those staying on campus or in town. Attendees should also bring sunscreen (SPF 30 or greater) and reapply it often if they plan to spend more than very short periods outdoors.

## Travel Visas

A list of countries and territories whose citizens require visas in order to enter Canada as visitors can be found on <http://www.cic.gc.ca/english/visit/visas.asp> and additional information regarding visas can be found on <http://www.cic.gc.ca/english/visit/index.asp>. Visitors are required to make their own visa arrangements.

## Electrical System

Canada operates on the same 120V 60 Hz AC electrical system as the United States. Grounded outlets require a plug with two parallel flat blades and a cylindrical pin, and ungrounded outlets require a plug with two parallel flat blades. Many laptop computers operate with only an adapter, some hotels provide dual-voltage outlets for shavers, and some hotels provide hair dryers, but visitors should check with their hotels before arrival to determine which appliances will need adapters and/or transformers.

## Child Care

Younger guests (<12 years old) may stay at the *Laurentian Child and Family Centre*. Details will be provided in the *Second Circular*, but if you wish to make use of this service, please let us know as soon as possible so that we can make appropriate arrangements.

## Important Dates

- 01 February 2023**      Deadline for **early submission** of abstracts (\$40)
- 01 March 2023**      Deadline for **late submission** of abstracts (\$60)
- 31 March 2023**      Deadline for **early registration**  
Deadline for **field trip, workshops, and short course registrations**
- 24 April 2023**      Deadline for **hotel “block” bookings**

## Additional Information

The **Second Circular** will be distributed in **January 2023**. Both circulars and additional information will be posted on the meeting website (<https://event.fourwaves.com/Sudbury2023/>). Questions may be directed to [Sudbury2023@laurentian.ca](mailto:Sudbury2023@laurentian.ca).

We are looking forward to seeing you in Sudbury!

*Sudbury 2023 GAC-MAC-SGA Local Organizing Committee*



*The Laurentian University Campus with Lake Ramsey and Bethel Lake in the background, the Idylwyld Golf Club and Lake Nepahwin in the left foreground, Bennett Lake and the Lake Laurentian Conservation Area to the right.*