Postdoctoral Fellow – Water Temperature Modelling

We are seeking a highly motivated postdoctoral fellow (PDF) to be part of the Global Water Futures (GWF) Core Modelling team. This PDF will be based at McMaster University in Hamilton, Ontario, Canada, yet liaise closely with the entire core modelling team.

What You Will Do:
This is a full-time, 2-year term position (with reviews after 4 months and 1 year). The new hire will focus on the design and implementation of water temperature formulations in GWF core models and evaluate their performance across a range of cold environments using in-situ and remote sensing data. There may be potential to expand to other aspects of catchment science and tracer modelling.

Responsibilities:
Conduct research aimed at adding improving temperature and water tracer modeling capabilities into GWF core models. The work will include:
- contribute to the planning and design of new water temperature modules;
- implement/utilize new water temperature modules;
- contribute to the experimental design and conduct model experiments targeting temperature prediction across GWF core observatories;
- recommend and implement hydrological model upgrades to better support thermal/energy components of these models.

Communicate research results through publication in peer-reviewed journals, meeting proceedings, and presentations at scientific meetings.

Participate in research development with internal and external collaborators across disciplines. Travel to Canmore/Calgary to work with GWF Core Model team. Travel to Yukon to participate in water temperature research.

What You Need:
Education and Years of Experience:
- Ph.D with specialization in hydrologic sciences/engineering, including expertise in hydrologic and water temperature or similar modelling.

Knowledge, Skills, and Abilities:
- Demonstrated abilities working with and developing water temperature models; capabilities working with other hydrological models desired.
- Strong familiarity with hydrologic and water quality observation datasets.

- Strong scientific programming skills.
- Demonstrated ability to publish research results in peer-reviewed journals.
- Ability to effectively participate in and interact productively with model developers.
- Strong skills in written and oral communication of research results.
- Ability to work in a team.

Applicants should send their areas of research interest in a cover letter, with CV, transcripts, and contact information of three references as a single PDF file to careysk@mcmaster.ca

Closing date: Applications will be reviewed as they are received. The positions will remain open until filled.

We thank all applicants for their interest. However, only those individuals selected for an interview will be contacted.

Additional Details
Renumeration: A salary of $62,500 per year plus applicable benefits and a $2,000 per year research stipend.

Equity, Diversity and Inclusion
The impact of leaves (e.g. parental leave, extended leaves due to illness, etc.) will be carefully considered when reviewing candidates' eligibility and record of research achievement. Candidates are encouraged to explain in their cover letter how career interruptions may have impacted them. We invite and encourages applications from all qualified individuals, and welcomes applications from candidates who identify as Indigenous, racialized, having disabilities, and from persons of any sexual identities and gender identities.

About Global Water Futures
Global Water Futures is a multi-university, transdisciplinary research program hosted by the University of Saskatchewan. The overarching goal is to deliver risk management solutions for managing Canada's water futures. For more information, see www.gwf.usask.ca.

About McMaster University
McMaster University is located on the traditional territories of the Haudenosaunee and Mississauga Nations, and within the lands protected by the Dish with One Spoon wampum agreement. McMaster University is a globally renowned institution of higher learning and a research community committed to advancing human and societal health and well-being. Our focus on collaboratively exchanging ideas and approaches makes us uniquely positioned to pioneer ground-breaking solutions to real-world problems leading to a Brighter World. The Faculty of Science works to create global impact by advancing scientific discovery and knowledge, and promoting greater understanding. Our innovative, interdisciplinary approach generates new methods and insights, results, and lasting change.