

## TWO POSTDOCTORAL POSITIONS IN BIOGEOCHEMICAL AND ECOSYSTEM MODELING

Two postdoctoral scientist (PDS) positions are available in the [ecohydrology research group \(uwaterloo.ca/ecohydrology\)](http://uwaterloo.ca/ecohydrology) at the University of Waterloo. The positions are part of [Global Water Futures: Solutions to Water Threats in an Era of Global Change \(gwf.usask.ca\)](http://gwf.usask.ca), a large collaborative initiative involving multiple Canadian universities and partner organizations.

The two PDS will focus on the theoretical and numerical modeling of biogeochemical and ecosystem processes in catchments and lakes. Of particular interest will be to link local-scale reactive transformations and ecological interactions to regional-scale hydrological and biogeochemical fluxes. The PDS will work within a multidisciplinary team with significant strengths in ecohydrology, limnology, environmental (bio)geochemistry, aquatic ecology, high-performance computing, information systems and water governance.

One researcher (PDS1) will use multicomponent reactive transport modeling to quantify transformations and exchanges of carbon, nutrients and metals at reactive interfaces along the terrestrial water cycle (rhizosphere, capillary fringe, riparian soils, streambed and reservoir sediments). The other researcher (PDS2) will apply deductive and inductive modeling approaches to simulate and forecast algal blooms along the margins of large lakes. The PDS will be expected to interface with colleagues carrying out observational studies, and to interact on a regular basis with external partners and practitioners.

Applicants must have a PhD in a relevant natural science or engineering field, and have a track record of research productivity, including peer-reviewed publications. Preference will be given to applicants who have demonstrated experience in mathematical modeling, programming and numerical analysis. Experience with relevant software and modeling platforms, high performance computing and model-data assimilation techniques is desirable, but not necessary.

The PDS will work under the supervision of Professor Philippe Van Cappellen and their performance will be assessed annually. Funding for the positions is available for up to three years. Interested applicants should submit a cover letter in which they identify the position (PDS1 or PDS2) for which they wish to be considered, and state their motivation and professional expectations. In addition, a curriculum vitae, academic transcripts and contact information of three references are required. All documentation submitted must be assembled in a single pdf file and sent to [gwf-uw@uwaterloo.ca](mailto:gwf-uw@uwaterloo.ca) with PDSMOD-GWF-YourName in the subject line.

Applications will be accepted immediately and reviewed beginning Aug 21, 2017. The positions will remain open until filled. We thank all applicants for their interest, however, only candidates selected for an interview will be contacted.