



Postdoctoral Fellowship Position: Statistics of climate extremes

PCIC is seeking to hire a postdoctoral fellow.

Pacific Climate Impacts Consortium (PCIC)

The Pacific Climate Impacts Consortium (PCIC) is a regional climate service centre at the University of Victoria that provides practical information on the physical impacts of climate variability and change to users and stakeholders in BC and across Canada. Through collaboration with climate researchers and regional stakeholders, PCIC produces knowledge and tools in support of long-term planning. <http://www.PacificClimate.org>

Challenge

The postdoctoral fellow works as part of a multi-disciplinary team that undertakes research on climate-related precipitation extremes, including phenomena such as extreme rainfall and snowfall, freezing rain and drought. This postdoctoral position is part of a collaboration between (a) the pan-Canadian Global Water Futures (GWF) research program (<https://gwf.usask.ca>), which aims to address the strategic needs of the Canadian economy in adapting to change and managing risks of uncertain water futures, (b) the Canadian Statistical Sciences Institute (CANSSI), which is a national institute offering the leadership and infrastructure necessary to develop statistical and data sciences research in Canada (<http://www.canssi.ca>), and (c) PCIC. The position will contribute to the GWF Pillar 3 project entitled 'Climate-related precipitation extremes', which seeks to provide guidance to users in planning and preparing for the environmental, health and economic impacts of critical precipitation extremes by working closely with users from a representative collection of sectors. The position will be located at the University of Victoria and will be jointly supervised by Prof. Francis Zwiers (PCIC) and Prof. Ronald Stewart (University of Manitoba).

Nature of Work

The postdoctoral fellow will develop and apply innovative statistical approaches based in extreme value theory in collaboration with climate scientists and users in order to best inform them about the potential impacts of changes in precipitation-related extremes in their domains of interest. He/she will use both observational and climate model simulated data that span a range of spatial resolutions. A particular opportunity will be to contribute to the analysis of new, very high resolution, climate change experiments that are being undertaken in collaboration with scientists at the US National Center for Atmospheric Research. PCIC offers a positive, supportive and collegial work environment that promotes collaboration and excellence. As a user and stakeholder driven organization, PCIC requires that candidates be able to flexibly adapt their research objectives to changing organizational and stakeholder priorities and needs.

Objectives

The objectives of the position are to conduct research that seeks to address some or all of the following:

- Evaluate the impact of the observed climate variability and change on the intensity and frequency of climate-related precipitation extremes at local scales
- Assess the impact of climate change on climate-related precipitation extremes under projected future climate conditions using output from a variety of different types of climate models

- In collaboration with project investigators, work closely with stakeholders to communicate and update their understanding of potential changes in the aspects of climate-related precipitation extremes that are of concern to them.

Knowledge, Skills & Abilities

Priority in evaluation will be given to candidates with the best combination of knowledge and experience, skills and abilities.

Knowledge and Experience

- PhD in statistics or closely related discipline
- Good knowledge of extreme value theory
- Experience in manipulating global and regional climate model outputs
- Experience studying climate variability and change
- Experience working on interdisciplinary projects and with interdisciplinary teams
- A high level of productivity for peer-reviewed publications is expected.

Skill

- Excellent data analysis and data visualization skills
- Excellent statistical analysis skills
- Excellent communications skills
- Excellent programming skills in several languages (R being particularly useful)
- The applicant must have excellent multi-tasking skills

Ability

- Work in a self-directed manner and within a team environment
- Evaluate and adjust priorities and objectives in light of research findings and evolving requirements
- Find creative solutions to complex, open-ended problems.
- Operate with a professional demeanor while representing PCIC, CANSSI and GWF at professional meetings and other venues.

Employment period

2-year term commitment.

Additional information: Address enquiries to Francis Zwiers at climate@uvic.ca.

Application: Please send your application including a cover letter, CV, and three professional references to Francis Zwiers, climate@uvic.ca, with “**ATTN: Postdoc- Statistics of climate extremes**” in the subject line. Please indicate whether you are legally able to work in Canada.

Review of applicants will start **immediately** and continue until suitable candidates are found.