



PIMS DISTINGUISHED SPEAKER

PART OF THE CROSS CANADA SERIES OF LECTURES ON MATH OF PLANET EARTH

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ARE CLIMATE EXTREMES CHANGING?

Thursday, NOV 28th at 3:30 pm

Location: University of Victoria

Hickman Building Room 110

There is an accumulating body of evidence suggesting that on global scales, temperature and precipitation extremes have both changed in response to human influences on the climate over the past half-century or so. The research on temperature extremes, in particular, is now quite well established, although work to understand the feedback mechanisms involved in individual extreme temperature events is ongoing. The evidence on precipitation extremes is less well established, although there is increasingly strong evidence that human influence is detectable in observations at the largest scales that are resolvable in available international compilations of daily precipitation records. In contrast, the picture concerning more complex indicators of dryness (e.g., various drought indices) seems to be somewhat less clear. Increasingly, climatologists are using statistical extreme value theory in their analyses, although most studies to date have not explicitly modelled the spatial dependence of extremes. This talk will review some of the recent research on historical changes in extremes and projections for the future. It will also point out some statistical challenges that arise from this work

Before becoming Director of the Pacific Climate Impacts Consortium, Dr. Zwiers served as a Research Scientist (1984-2006), Chief of the Canadian Centre for Climate Modelling and Analysis (1997-2006) and Director of the Climate Research Division (2006-2010), all at Environment Canada. He is an Adjunct Professor in the Dept. of Mathematics and Statistics of the University of Victoria and in the Dept. of Statistics and Actuarial Science of Simon Fraser University. His expertise is in the application of statistical methods to the analysis of observed and simulated climate variability and change. Dr. Zwiers is a Fellow of the Royal Society of Canada and of the American Meteorological Society, a recipient of the Patterson Medal, has served as an IPCC Coordinating Lead Author of the Fourth Assessment Report, and is an elected member of the IPCC Bureau

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