

# ISSUES IN THE THEORETICAL FOUNDATIONS OF CLIMATE SCIENCE:

ALUMNI HALL, VICTORIA COLLEGE  
(VC 112), UNIVERSITY OF TORONTO.  
NOVEMBER 15, 2018

## SCIENTIFIC AND PHILOSOPHICAL PERSPECTIVES.

Climate scientists and philosophers have recently examined some of the issues raised by basic concepts in climate science, including the concepts of climate, climate state, climate sensitivity, radiative forcing and internal variability. These issues include, among others, how to characterize the boundary of the climate system, whether climate states should be partly characterized in physical terms, and how to develop a sufficiently general notion of climate sensitivity. This workshop will bring climate scientists and philosophers together to further illuminate such foundational issues and to consider how they might be addressed in a way that helps to further our understanding of climate and our ability to model it. The workshop will also consider the quantification of uncertainty in climate modelling and climate model-based decision making.

The workshop is supported by the Institute for the History and Philosophy of Science and Technology (University of Toronto), the School of Environmental Science (University of Toronto) and the School of Historical and Philosophical Inquiry (University of Queensland).

**FREE REGISTRATION: [HTTPS://FOUNDATIONSOFCLIMATESCIENCE.EVENTBRITE.COM.AU](https://foundationsofclimatescience.eventbrite.com.au)**

## SCHEDULE, NOV. 15:

09:00 - 09:30 Welcome and Coffee

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09:30 - 10:15 Climate sensitivity: definitions and evidence -  
Danny Harvey

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10:15 - 11:00 Issues in the Theoretical Foundations of Climate  
Science - Joel Katzav and Wendy Parker

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11:00 - 11:30 Break.

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11:30 - 12:15 Multi-model ensembles for the quantification of  
climate uncertainty - Julie Jebeile

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12:15 - 13:15 Lunch.

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13:15 - 14:00 What is climate? - Shaun Lovejoy

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14:00 - 14:45 On defining climate and climate change -  
Charlotte Werndl

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14:45 - 15:15 Break.

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14:45 - 15:30 Climate models as boundary models - Steve  
Easterbrook

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15:30 - 16:15 Precise probabilities and evidence in climate  
science - Aaron Kenna

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18:30 Dinner.

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Organisers: Joseph Berkovitz (University of Toronto), Steve Easterbrook (University of Toronto) and Joel Katzav (University of Queensland).

# SPEAKERS.

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**STEVE EASTERBROOK**

Department of Computer Science,  
University of Toronto.

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**DANNY HARVEY**

Department of Geography,  
University of Toronto.

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**JULIE JEBEILE**

Philosophie des sciences et Sociétés  
CEFISES, Université catholique de  
Louvain.

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**JOEL KATZAV**

School of Historical and  
Philosophical Inquiry, University of  
Queensland.

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**AARON KENNA**

Institute for the History and  
Philosophy of Science and  
Technology, University of Toronto.

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**SHAUN LOVEJOY**

Department of Physics, McGill  
University.

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**WENDY PARKER**

Department of Philosophy, Durham  
University

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**CHARLOTTE WERNDL**

Department of Philosophy, University  
of Salzburg.

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