Knowledge and Models in Climate Science: Philosophical, Historical, and Scientific

# Friday October 24 - AM

8:30 - 9:15 Registration (North Wing Break Area)

9:15 - 9:30 Welcome (Amphitheatre A)

9:30 - 10:30 (Amphitheatre A, Chair: Carl Hoefer) Dynamic Climatology: Historical Perspectives on Shape-Shifting Nouns James Fleming (Colby College, Science, Technology and Society)

10:30 - 10:45 Break

10:45 - 11:45 (Amphitheatre A, Chair: Carl Hoefer) Are Climate Models Well Confirmed? And Why Would We Want to Know? Gregor Betz (Karlsruher Institute for Technology, Institute of Philosophy) video conference

11:45 - 12:00 Break

12:00 - 1:00 (Amphitheatre A, Chair: Wendy Parker) Credibility of Regional Climate Model Projections of Future Climate: Issues and Challenges Linda Mearns (National Center for Atmospheric Research (NCAR), Regional Integrated Sciences Collective (RISC), IMAGe)

1:00 - 2:30 Lunch (Ashers Dining Room)

# Friday October 24 - PM

2:30 - 3:30 (Amphitheatre A, Chair: Eric Desjardins) Missing the Forest for the Fish Eric Winsberg (The University of South Florida, Philosophy Department) 3:30 - 3:45 Break

3:45 - 4:45 (Amphitheatre A, Chair: Martin Vezér) Democratizing Analytics: Scientifically and Ethically Informed Decision Support for Addressing Wicked Problems Robert Lempert (Pardee RAND Graduate School, Frederick S. Pardee Center for Longer Range Global Policy and the Future Human Condition)

6:30 Dinner (Ashers Dining Room) - for plenary speakers and those who signed up with registration.

# Saturday October 25 - AM

9:00 - 9:30 Registration (North Wing Break Area)

9:30 - 10:30 (Amphitheatre A, Chair: Wendy Parker) Knowledge Infrastructures and Climate Change Science Paul Edwards (University of Michigan, Department of History and School of Information) 10:30 - 10:45 Break

10:45 - 11:45 (Amphitheatre A, Chair: Martin Vezér) Practical Philosophies of Climate Modeling Gavin Schmidt (National Aeronautics and Space Administration (NASA), Goddard Institute for Space Studies (GISS))

11:45 - 12:00 Break

12:00-1:00 (Amphitheatre A, Chair: Wayne Myrvold)

How Should Climate and Climate Change Be Defined? Charlotte Werndl (LSE, University of Salzburg)

1:00 - 2:30 Lunch (Ashers Dining Room)

#### Saturday October 25 - PM

Abstracts for all breakout sessions are available on the conference website.

2:30 - 3:30 Breakout session 1

Amphitheatre A (Chair: Dan Hicks) Earth System Ethics: A Proposal for a Systems Approach to Ethics Laura Ballantyne-Brodie (New York University)

Paleo-Climate & Future-Climate Adrian Currie (University of Calgary)

Amphitheatre B (Chair: Alkistis Elliott-Graves) Plasticity, Variability, Thresholds and Evolution: Why It's So Hard to Model the Response of the 'Average' Insect to Climate Change Brent Sinclair (University of Western Ontario)

Effects of Simulated Recurrent Inclement Winter Weather on the Stress Response and Feeding Behaviour of White-throated Sparrows (Zonotrichia albicollis) Andrea Boyer (University of Western Ontario)

Cherry Room (Chair: Martin Vezér) The Vindication of Computer Simulations Nicholas Fillion (Simon Fraser University)

Constructive and External Validity for Climate Modeling Steve Easterbrook (University of Toronto)

Break 3:30 - 3:45

3:45 - 4:45 Breakout session 2 Amphitheatre A (Chair: Dan Hicks) Reactions to Shining a Light on Science in the Dark Wendy Parker (LSE) Coupled Atmospheric and Hydrologic Modeling Jason Davidson (University of Waterloo) Amphitheatre B (Chair: Alkistis Elliott-Graves) Wind Trends in the Far North: Model-based Climate Projection Daniel Lachat (York University)

Plurality of Models, Optimization and Mechanisms in Climate Studies. The Role of Feedback in the New IPCC Report Ioan Muntean (University of Notre Dame)

Cherry Room (Chair: Eric Desjardins) A Proposed Alternative Measure for Climate Change Potential

Forrest DeGroff (City College of San Francisco)

MultiScale Modeling and Pluralism in Climate Systems Jon Lawhead (University of Southern California)

Extreme Floods and Short-Term Hydroclimatological Fluctuations in the Hyper-Arid Dead Sea Region, Israel Nathaniel Bergman\*, Noam Greenbaum and Uri Schwartz (\*University of Western Ontario)

6:30 Dinner (Ashers Dining Room) - for plenary speakers and those who signed up with registration.

#### Sunday October 26 - AM

9:00 - 9:30 Registration (North Wing Break Area)

9:30 - 10:30 (Amphitheatre A, Chair: Andrew Chater) Unraveling the Climate Prediction Imperative Lenny Smith (London School of Economics) "Clarity before Consensus"

Break 10:30 - 10:45

10:45 - 11:45 (Amphitheatre A, Chair: Wayne Myrvold) Mysterious Models and Enigmatic Ensembles Reto Knutti (ETH Zurich, Institute for Atmospheric and Climate Science)

Break 11:45-12:00

12:00 - 1:00 (Amphitheatre A) Chair: Wendy Parker (Durham University, Department of Philosophy) Title: Looking forward in light of what we've learned

1:00 - 2:30 Lunch & Goodbye (Ashers Dining Room)