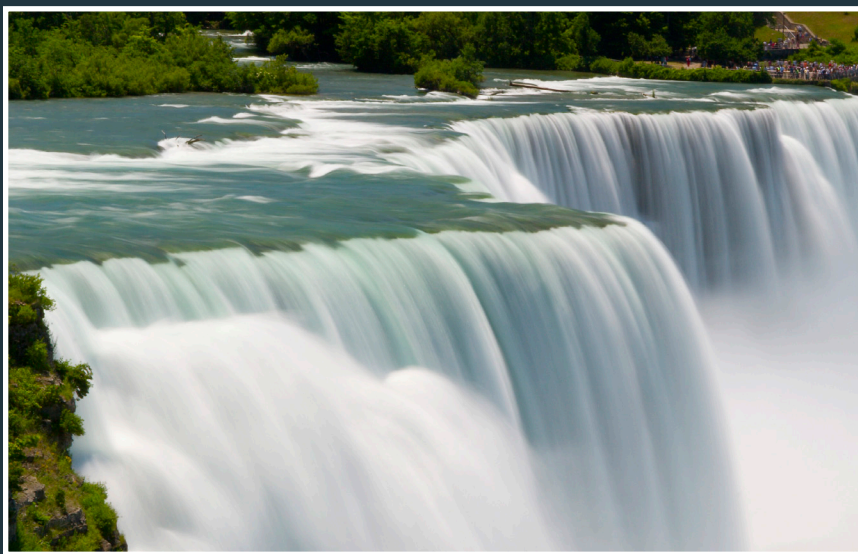


31st International Workshop on Bayesian Inference and  
Maximum Entropy Methods in Science and Engineering

# MaxEnt 2011

Waterloo, Canada • July 10-15, 2011



ABSTRACT  
DEADLINE:  
**April 16**  
**2011**

For over 30 years, the MaxEnt workshops have explored the use of Bayesian and Maximum Entropy methods in scientific and engineering applications. The workshop invites work on all aspects of probabilistic inference, including novel techniques and applications, and work that sheds new light on the foundations of inference. This meeting will feature a special session on the Principle of Maximum Entropy Production (MEP).

## IN PREVIOUS WORKSHOPS, AREAS OF APPLICATION HAVE INCLUDED:

- Astronomy and Astrophysics
  - Nanoscience
  - Chemistry
  - Genetics
  - Source Separation
  - Earth Science
  - Geophysics
  - Particle Physics
  - Climate Studies
  - Medical Imaging
  - Quantum Mechanics
  - Engineering
  - Material Science
  - Plasma Physics
  - Robotics
- Foundational issues involving probability theory and information theory, and the novel application of inference to illuminate the foundations of physical theories, are of keen interest.

## INVITED SPEAKERS (confirmed)

**Arieh Ben-Naim**, Dept. of Chemistry,  
Hebrew University of Jerusalem

**Tim Jupp**, Dept. of Mathematics, University of Exeter

**Ralph Lorenz**, Applied Physics Lab,  
Johns Hopkins University

**Radford Neal**, Dept. of Statistics and Dept.  
of Computer Science, University of Toronto

**Robert Niven**, School of Engineering and  
Information Technology, The University of  
New South Wales

**Gerald Pollack**, Dept. of Bioengineering,  
University of Washington

**John Skilling**, Maximum Entropy Data  
Consultants, Kenmare, Ireland

**Rob Spekkens**, Perimeter Institute for  
Theoretical Physics, Waterloo

**Jos Uffink**, Institute for History and Foundations  
of Science, Utrecht University, Netherlands

## CALL FOR PAPERS

The workshop includes a one-day tutorial session, invited papers, contributed papers and poster presentations. Contributed papers related to the above topics are being solicited. Abstracts (one page of about 400 words) of the proposed papers should be submitted via the conference website: [www.maxent2011.org](http://www.maxent2011.org)

### BACKGROUND INFORMATION

Waterloo is a leading center of science and technology in Canada, hosting the University of Waterloo (consistently ranked the top Canadian university for innovation, and regarded as one of the finest Canadian universities for science and technology) and Perimeter Institute (a world-class institute for theoretical physics), and home to such cutting-edge technology companies as Research in Motion (maker of the Blackberry) and Maplesoft.

### ORGANISING COMMITTEE


**Philip Goyal (Chair)**, Dept. of Physics,  
University at Albany (SUNY).

**Adom Giffin**, Applied Physics Group, Dept. of Mechanical  
and Aerospace Engineering, Princeton University.

**Kevin H. Knuth**, Dept. of Physics,  
University at Albany (SUNY).

**Edward Vrscaj**, Dept. of Applied Mathematics,  
University of Waterloo.

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