

Doing Science in the Dark: the challenges of Climate-like science

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**Library Speakers Series on Climate Change: The Philosophical Issues
Rotman Institute of Philosophy**

29 October 2014

Abstract

Climate prediction and weather prediction are very different: due to constant refinements and new techniques, the life time of a climate model is much less than the forecast we ask it to make, whereas the same weather model can be used to forecast tomorrow's weather, day after day, for months if not years — allowing us to learn from our mistakes. By contrast, climate science is continually exploring new territory, using new and unproven techniques. The challenges of doing science partly in the dark, past successes and failures, and many examples will be discussed. No background knowledge of climate, weather or maths will be assumed.