WATERLOO | MATHEMATICS STATISTICS AND ACTUARIAL SCIENCE

2013 DISTINGUISHED LECTURE

Don't know, can't know: Communicating risk and deeper uncertainty Thurs. Jan. 10, 2013 | 4:00 PM | MC 1085 Reception will follow



Mathematical models are vital whenever we admit we cannot predict precisely what is going to happen, for example in weather forecasting, insurance, nuclear safety, natural disasters, the effect of new medical interventions and, more controversially, in climate change and finance. Such models get so complex that multiple simulations of 'possible futures' may be necessary, which allow us to quantify chances of future events, which then need to be communicated to the public and policy-makers. If we take a Bayesian perspective, then any probability assessment is only a construction based on available information and judgment, and multiple metaphors can be adopted to create a narrative around these quantities.

And models are 'just models', and are always wrong to some extent, and so how can we express this deeper uncertainty?

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