



Risk communication for practitioners

P. McSharry (1,2,3)

(1) Said Business School, University of Oxford, Oxford, UK (patrick@mcsharry.net), (2) Smith School of Enterprise and the Environment, University of Oxford, Oxford, UK, (3) Mathematical Institute, University of Oxford, Oxford, UK

Our ability to forecast the future of geophysical systems has been enhanced by advances in science, wider availability of high quality spatiotemporal observations and increased computational resources. Despite all these improvements, practitioners are frequently disappointed by the occurrence of extreme events and subsequent forecast failure. A better understanding of these extreme events is fundamental for catastrophe modellers trying to form an accurate price of risk. Scientists are called upon to quantify the risk of extreme events and to communicate a meaningful measure of the risk exposure. We explore how ensemble prediction techniques may provide a method for quantifying forecast uncertainty and how one can obtain a continuous forecast density. We discuss methods for evaluating density forecasts which incorporate the specific cost functions defined by users. Finally we investigate the most appropriate means of communicating information about risk and uncertainty to policy-makers and decision-makers.