



## Abstracts and Biographies | Challenging Forecasts, Difficult Decisions

Wednesday 7 December 2022, 14:00 – 17:40

### Dr Cyril Morcrette, Met Office

**Biography:** Cyril works in the parametrizations group at the Met Office and holds a joint position with Exeter University. Before that he did a PhD and post-doc in the Meteorology Department at Reading University.

**Title:** When Will Santa Get To My House? A Tale of Forecast Uncertainty.

**Abstract:** Have you ever wondered about weather forecasting, ensembles, stochastic physics and interpreting the probabilities. This public-outreach-level talk will go through each of those concepts and draw parallels with the festive conundrum: when will Father Christmas get to my house?

### Dr Linus Magnusson, ECMWF

**Biography:** Linus Magnusson obtained his PhD from Stockholm University in 2009 and joined ECMWF shortly after. His research interests include severe weather predictions across different time-scales, tropical cyclones, medium-range forecast error propagation and diagnostics for processes in the Arctic.

**Title:** Multi-Scale Predictions of Extremes - Current Capabilities and Limitations of a Global Ensemble System.

**Abstract:** The talk on the meeting will be about predictions of extreme events on different time-scales, spanning from monthly forecasts to short-range predictions. The focus will be on how to use case studies to understand forecast errors and processes behind the predictability.

### Prof Brian Haddock, Network Rail

**Biography:** Brian Douglas Haddock is a visiting Professor within the School of Engineering at Newcastle University and visiting Professor at Loughborough University and holds the position of Head of Weather Resilience at Network Rail. He is also Chair of the Rail Industry Group that manages seasonality.

Brian has been Head of Weather Resilience for around two years and started off in the National Weather Team in 2008. Brian has worked within Network Rail Route (Anglia) as a weather specialist and has also worked for train operators, First Capital Connect and Greater Anglia where he was Head of Performance. Brian was also Head of the National Operations Centre (NOC) before being drafted into lead a National Review of Summer.

Brian's fascination with the railway is inherited from his father who worked as an engineer on the railway for over forty years.

**Title:** Impacts and User-Decisions Associated with Extreme Weather

### Rebekah Sherwin

**Biography:** Rebekah Sherwin has worked as a Met Office operational meteorologist since 2008, in a career that has spanned a variety of roles in the UK and overseas – from Antarctica to St Helena! – including a period teaching meteorology in the Met Office College. Rebekah is now a Deputy Chief Meteorologist within the Guidance Unit, the team responsible for issuing National Severe Weather Warnings and providing leadership on the weather story across the Met Office.

**Title:** The Met Office's Impact-Likelihood warning matrix - Grey, Yellow, Orange or Red?

**Abstract:** This session is a behind-the-scenes look at what goes into issuing a severe weather warning – how forecasters decide on a colour on the basis of both expected impacts and the likelihood of those impacts, and how and why that colour might change in the lead-up to an event.

**Dr Mark Rodwell, ECMWF**

**Biography:** Mark Rodwell is the coordinator of diagnostics at ECMWF. A key aspect of his work is the evaluation of changes in the forecast system, and the identification of remaining problems. His research focuses on flow-dependent deficiencies through diagnosis of short forecasts and ensemble data assimilation. Previous employment was at the UK Met Office where he worked on the seasonal predictability of the North Atlantic Oscillation, and at Reading University where he worked on the Asian monsoon and the links between monsoons, deserts and subtropical anticyclones.

**Dr Keith Williams**

**Biography:** Keith has been a member of the Royal Meteorological Society since 1992. He obtained his degree in physics and meteorology, and his PhD, from the University of Reading. Upon joining the Met Office in 1998, Keith focused on understanding processes leading to a spread in climate sensitivity amongst climate models, before going on to manage the global model evaluation team. In 2017, Keith took up his current role as head of the Atmospheric Processes and Parametrizations group.

Keith is a former co-chair of WMO's Working Group on Numerical Experimentation. He is currently the scientific lead of the Weather and Climate Science for Service Partnership for SE Asia and co leads work at the Met Office on ensemble development as part of a wider strategic action on ensemble exploitation.