



Abstracts | Tropical Cyclones

Wednesday 16 January 2019, 12.30pm – 5.20pm

Joanne Camp

Introduction

Jo will provide a brief overview of what tropical cyclones are, and introduce the day's programme.

Julian Heming and Dr Linus Magnusson

Tropical cyclone operational modelling at the Met Office and ECMWF

Julian: This presentation will provide an overview of the Met Office's approaches to tropical cyclone modelling; regional and global, deterministic and ensembles, from short period through seasonal to climate time scales.

Linus: This presentation will show the capabilities and challenges for global models to predict tropical cyclones and highlight some key research activities. We will describe the observation usage around tropical cyclones in data assimilation and give examples of their impact. From a model perspective we will show the impact of running at 5-km resolution and also the impact by applying ocean coupling. Finally we discuss the future challenges for tackling the errors in intensity forecasts for tropical cyclones.

Prof. Pier Luigi Vidale

Overview of tropical cyclones and climate change

Dr Andrew Hartley and Dr Sam Hardy

The UK's tropical cyclone partnerships

Tropical cyclones affect many countries – the long-term response to these can be challenging, especially for less developed countries, where there may be less capacity to implement appropriate forecasting or other mitigating strategies, or to conduct research into key questions. In these cases, partnering with the UK can be helpful, as there are development mechanisms to address this – creating partnerships directly with the National Meteorological Service in a country, and defraying research to the academic sector, to help pull through science into operations. We will discuss a case study of work under the Newton Fund in the Philippines, discussing examples such as forecaster training and application of high-resolution research.

Dr Beth Simons*Tropical weather and the humanitarian response*

ShelterBox is an international disaster relief charity that provides emergency shelter and household items to those affected by disasters and conflict. Using the example of Super Typhoon Ompong (Mangkhut) that impacted the Philippines in September 2018, a summary of the humanitarian response will be provided, from monitoring the approach of the typhoon, through to communicating build back safer approaches. Some of the challenges facing the humanitarian sector in responding to tropical weather, including climate change and increasing urbanisation will be discussed.