



Tropical Cyclones: From Science to Mitigation

Met Office, Fitzroy Road, Exeter, Devon, EX1 3PB

Wednesday 16 January 2019, 12.30pm – 5.20pm

Tropical cyclones are among the most devastating forms of severe weather. They are estimated to have caused over a million deaths since the start of the 20th century, and costs in the US alone are estimated at \$28 billion a year.

Mitigating the impacts of tropical cyclones requires a concerted response; from meteorologists observing and forecasting their movement and strength, governments and the humanitarian sector planning resilience strategies and responding to disasters, scientists advancing the modelling capabilities and assessing future risks and insurers paying claims and adjusting premiums.

This meeting will start with an overview of these many different aspects of tropical cyclones. This will be followed by talks on the approaches to operational modelling of tropical cyclones taken by the Met Office and the European Centre for Medium-range Weather Forecasts (ECMWF) and a review of the variability of tropical cyclone activity on the longer climate timescale.

In addition to talks there will be a posters and visual demonstrations on various aspects of tropical cyclones including hazard warning strategies, high-resolution modelling simulations and the involvement of the insurance sector. These will be available to view before the meeting and during the extended afternoon tea break. After the tea break there will be an overview of the UK government's approach to tropical cyclones as part of its overseas aid strategy by partnering the academic sector with national meteorological services. This is followed by a talk from ShelterBox, as an example of how the humanitarian sector prepares for and responds to disasters. The meeting will close with a short discussion.

Meeting Chair – Jo Camp, Met Office

12:30	Arrive & poster preview	-
13:15	Introduction and an overview of Tropical Cyclones	Jo Camp Met Office
14:00	Tropical cyclone operational modelling at the Met Office and ECMWF	Dr. Linus Magnusson ECMWF Julian Heming Met Office
14:35	Climate variability and tropical cyclones	Prof. Pier Luigi Vidale University of Reading
15:05	Refreshment break & Posters	-
15:50	The UK's tropical cyclone partnerships	Dr. Sam Hardy University of Leeds Dr Andrew Hartley Met Office
16:20	Tropical weather and the humanitarian response	Dr. Beth Simons ShelterBox
16:50	Discussion	-
17:20	Close of meeting	-

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This meeting is part of the Royal Meteorological Society National Meetings programme, open to all, from expert to enthusiast, for topical discussions on the latest advances in weather and climate. Non-members are welcome to attend these meetings.