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Oral
(Virtual Talk)

A working group was formed between the Met Office, The Bureau of Meteorology, ECMWF and other forecasting centres within the UM Partnership to understand and improve common systematic errors in the Indo-Pacific region and associated teleconnections across all timescales. In particular, the significant cold SST biases in the Eastern Indian Ocean have a significant impact on the prediction skill of the seasonal forecasting systems for tropical rainfall, Australasian monsoon system and the representation of associated key teleconnections in climate models. The multi-disciplinary group aims to consolidate current diagnoses of model errors and how they evolve and develop a new set of diagnostics and metrics using a seamless modelling framework. This will help measure the impact of future improvements, as well as recommend potential model/DA developments and observation campaigns to mitigate these errors. The current strands of activities explore different hypotheses for the sources of errors in the region: the role of different initial conditions and coupled data assimilation, the bathymetry and potential role of the Indonesian throughflow, the sensitivity to various physics changes in the atmosphere and ocean models and the evolution of key biases and the air-sea interaction processes involved at different timescales using coupled NWP, sub-seasonal to climate modelling frameworks. Key results from the initial investigations and sensitivity experiments coordinated across several modelling centres will be presented.

Presentation file

[Marzin-Charlene.pdf](#)

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