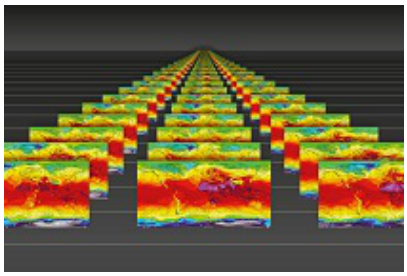

Contribution ID: **8** Type: **Oral presentation**

Spread of global 2-meter temperature analyses: disentangling forecast systematic errors from mis-estimation of ensemble spread

Wednesday, 3 April 2019 12:45 (15 minutes)

Global 2-meter temperature analyses in 2018 from ECMWF, JMA, and the UK Met Office were downloaded for 2018 from the TIGGE database. Using the multi-model analysis mean as a surrogate for truth, the daily spreads were decomposed into an estimate of the systematic error component (from time-mean differences between analyses) and a random component (the perturbation magnitude with respect to each system's time-mean systematic component). This error decomposition permits a tentative evaluation of the magnitude and location of systematic errors in the analyses and an evaluation of whether the initial spread estimates are properly set. This diagnostic approach will be applied to the ECMWF system, with results presented orally.

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Session Classification: Prediction and verification

Track Classification: Workshop on Predictability, dynamics and applications research using the TIGGE and S2S ensembles