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Oral or Poster Presentation

**Statistical Predictions of Seasonal Hail/Tornado Activity**

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Abstract

A method for seasonal predictions of March–June hail/tornado activity over the U.S. was developed with the singular value decomposition (SVD) and using January sea surface temperature (SST) as a predictor. The SVD analysis objectively picked out the distinctive lagged relationships between springtime hail/tornado activity and different modes of winter SST, including global SST warming trend, El Nino/La Nina, and the PDO-like pattern. The forecast model was cross-validated over the 1955–2014 period, indicating a certain degree of predictability of seasonal hail and tornado activity over the central and eastern U.S. The forecast model was also applied to the 2016 spring season, and the role of 2015/2016 El Nino was quantified.

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