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**Thilini V Mahanama\*** (thilini.v.mahanama@ttu.edu) and **Dimitri Volchenkov**. *Tornado Property Loss Scale: Up to \$8 Billion by 2025 (Classification, Dependence, and Prediction of Tornado Events in the U.S.)*.

The National Oceanic and Atmospheric Administration (NOAA) reports that the U.S. annually sustains about 1,300 tornadoes. Currently, the Enhanced Fujita scale is used to categorize the severity of a tornado event based on a wind speed estimate. We propose the new Tornado Property Loss scale (TPL-Scale) to classify tornadoes based on associated damage costs. The dependence between the tornado affected area and the associated property losses vary strongly over time and location. The overall tornado damage costs forecasted by a trained long short-term memory network trained on historical data might reach \$8 billion over the next five years although no systematic increase in the number and cost of disasters is observed over time. (Received August 31, 2020)