* Y. Zhang and A. L. Steiner: Projected climate-driven changes in pollen emission season length and magnitude over the continental United States
  + Citation: Y. Zhang and A. L. Steiner, “Projected climate-driven changes in pollen emission season length and magnitude over the continental United States,” in *Nature Communications,* Mar. 2022. [Online]. Available: <https://doi.org/10.1038/s41467-022-28764-0>
  + Summary: Warmer temperatures and increased CO2 emissions will yield a more instense pollen allergy season that will start earlier and end later.
* S. Borenstein: ‘Code red’: UN Scientists warn of worsening global warming
  + Citation: S. Borenstein, “‘Code red’: UN scientists warn of worsening global warming.” APNews.com. <https://apnews.com/article/asia-pacific-latin-america-middle-east-africa-europe-1d89d5183583718ad4ad311fa2ee7d83> (accessed March 18, 2022).
  + Summary: An August 6, 2021, report by the United Nation’s Intergovernmental Panel on Climate Change (IPCC) has found that even with a large cut in emissions of heat-trapping gases, the world will exceed the 1.5-degree-Celsius threshold, set by the 2015 Paris climate agreement, for the increase in temperatures above 19th century levels.
* S. Borenstein: UN climate report: ‘Atlas of human suffering’ worse, bigger
  + Citation: S. Borenstein, “UN climate report: ‘Atlas of human suffering’ worse, bigger.” APNews.com. <https://apnews.com/article/climate-science-europe-united-nations-weather-8d5e277660f7125ffdab7a833d9856a3> (accessed March 18, 2022).
  + Summary: A follow-up to the UN’s August 6 report outlines the consequences of passing the 1.5-degree-Celsius threshold, which include an increase in frequency and intensity of heat waves, floods, droughts, and wildfires. This will bring new dangers not only to people but to the planet’s ecosystem at large, and the extent of the damages will be directly proportional to the amount of heat-trapping gases that are emitted and to how much the world adapts to new climate patterns.
* J. Anochi et al.: Machine Learning for Climate Precipitation Prediction Modeling over South America
  + Citation: J. A. Anochi, V. A. de Almeida, and H. F. de Campos Velho, “Machine Learning for Climate Precipitation Prediction Modeling over South America,” *Remote Sensing*, vol. 13, no. 13, p. 2468, Jun. 2021, doi: 10.3390/rs13132468.
  + Summary: The forecasting ability of a supervised neural network for seasonal precipitation in South America is compared to the general atmospheric model used by the Nation Institute for Space Research, Brazil. Anochi et al. found that using a neural network yielded faster and more precise predictions when compared to the National Institute’s model.
* C. Kirkwood et al.: A framework for probabilistic weather forecast post-processing across models and lead times using machine learning
  + Citation: C. Kirkwood, T. Economou, H. Odbert, and N. Pugeault, “A framework for probabilistic weather forecast post-processing across models and lead times using machine learning,” *Phil. Trans. R. Soc. A.,* vol. 379, no. 2194,Feb. 2022, doi: [10.1098/rsta.2020.0099](https://doi.org/10.1098/rsta.2020.0099).
  + Summary: Kirkwood et al., using road surface temperature as an example, applied a quantile regression forest algorithm to aggregate the results of numerical weather prediction (NWP) models to provide probabilities of future weather outcomes that facilitate decision support.
* C.M. Soares et al.: Study of GOES-R Thermodynamic Indices for Short-Term Forecasting of Convective Weather Events Using Machine Learning
  + Citation: C.M. Soares, G.B. França, M.V. de Almeida, and V.A. de Almeida, “Study of GOES-R Thermodynamic Indices for Short-Term Forecasting of Convective Weather Events Using Machine Learning,” *Pure and Applied Geophysics,* Nov. 2021, doi: 10.1007/s00024-021-02889-7.
  + Summary: Soares et al. tested various machine learning algorithms for their forecasting utility in predicting meteorological convective events (MCEs) in Brazil for aviation purposes and found that simple logistic and multilayer perceptron algorithms performed the best.