Martin J. Fengler* (martin.fengler@gmail.com). Modern Meteorology: An Overview over the Methods used in Numerical Weather Prediction and its Application to Hurricane Irene.

This talk gives a short overview on techniques used in modern numerical weather prediction (NWP): It sketches the mathematical formulation of the underlying physical problem, its numerical treatment and gives finally an outlook on statistical weather forecasting (MOS). Special emphasis is given to Hurricane Irene in order to demonstrate the application and limits of the different methods. (Received September 21, 2011)