

ATS/CIRA Colloquium

Hyemi Kim

Visiting ATS from Stony Brook University

**Prediction of the Madden-Julian Oscillation:
Progress and challenges**

Hosted by Eric Maloney

**3 p.m. Thursday, Aug. 29
ATS room 101**

There has been an accelerating interest in forecasting the weather and climate within the subseasonal time range. The subseasonal forecast is particularly important since many management decisions, such as in water management, as well as agriculture and food security, fall into this range. The Madden-Julian oscillation (MJO), an organized envelope of tropical convection, is recognized as one of the leading sources of subseasonal predictability. Therefore, skillful prediction of the MJO is a key objective for subseasonal prediction. There have been great advances in MJO prediction in the last decade; leading dynamical forecasting systems are skillful out to five weeks. In this talk, recent progress and future challenges in MJO prediction will be discussed. In addition, simulation of MJO related key processes (e.g., moisture advection, moisture-convection coupling) and mean state biases in the new SubX (Subseasonal Experiment) and S2S projects' reforecasts will be discussed.

Link to colloquia page: <https://www.atmos.colostate.edu/colloquia/>