

## 2020 EOL Seminar Series (Virtual)

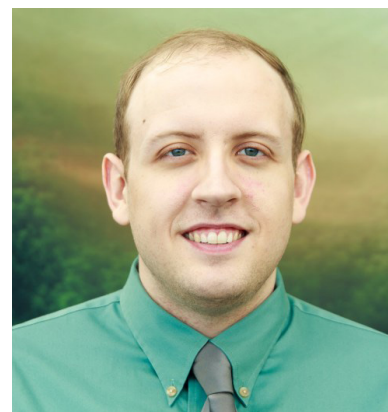
### SYSTEMATIC EVALUATION OF THE IMPACT OF ASSIMILATING A NETWORK OF GROUND-BASED REMOTE SENSING PROFILERS FOR FORECASTS OF NOCTURNAL CONVECTION INITIATION DURING PECAN

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TIME: 3:30 - 4:30 pm MDT

WEBCAST: <https://www.ucar.edu/live?room=f121022>

#### ABSTRACT

Nocturnal convection is often initiated by mechanisms that cannot be easily observed within the large gaps between rawinsondes or by conventional surface networks. To improve forecasts of such events, we present the systematic impact of assimilating a collocated network of high-frequency, ground-based thermodynamic and kinematic profilers collected as part of the 2015 PECAN field experiment. Through midlevel cooling and moistening, assimilating Atmospheric Emitted Radiance Interferometers (AERIs) increases the traditional contingency metrics for nocturnal convection initiation (CI). Although assimilating kinematic profilers often decreases similar metrics, we find that assimilating both datasets together improves various properties of the CI events that are successfully predicted (timing, location, shape, etc.). These results and other ongoing work will be presented in this seminar.

Email questions during the talk to Ulrike Romatschke: [romatsch@ucar.edu](mailto:romatsch@ucar.edu)

This webcast will be recorded and uploaded to the  
[NCAR Earth Observing Laboratory YouTube Channel](#)

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