



**Prof. Esther Mullens**  
Department of Geography  
University of Florida

## The past, present, and future of extreme precipitation in the South Central U.S.

### Abstract

Extreme precipitation, in all its forms, presents challenges and risks to human and natural systems. The timing, frequency, and type of precipitation drives a number of complex physical and societal impacts. As such, our ability to understand, predict, and project extreme precipitation continues to be an important research focus area.

This seminar will provide some examples of recent work by myself and colleagues within the broad theme of extreme precipitation across different scales and temporal periods, with a general focus on the South-Central United States. Starting in the future, I will discuss recently completed work using a 'scenario' approach to examine multi-model statistically downscaled climate projections of precipitation return-periods over Oklahoma and Texas. I will then present ongoing work within my research group at the University of Florida which focuses on the variability and character (intensity, coverage, duration) of extreme precipitation based on its driving meteorological cause. In other words, the weather type primarily driving an event, including tropical and extratropical cyclones, thunderstorms (convection), weather fronts, and/or combinations of the above.

<b>Time:</b>	Thursday, Oct. 10 @ 3:30 PM
<b>Location:</b>	LOV 353