

## **Atmospheric Studies in the PdN Region**

Presenting author: Rosa M. Fitzgerald

University of Texas, El Paso

Coauthors: William Stockwell, Duanjun Lu

[rfitzgerald@utep.edu](mailto:rfitzgerald@utep.edu)

An overview of theoretical models and their applications in weather and air pollution for the Paso del Norte (PdN) region is presented. The PdN region is comprised of the city of El Paso, the city of Juarez, Mexico and some adjacent suburbs in the state of New Mexico. The PdN metro area is isolated, being more than 500 km away from the nearest urban area of comparable size, thus making it an ideal location for air quality studies of an isolated urban environment. We present the optical models we have developed to study aerosols, and the implementation and application of meteorological and air quality models in the PdN region in order to obtain pollutant concentrations. Our research supports NOAA's mission to provide integrated environmental forecast services. These NOAA services promote healthy communities and ecosystems as called for in the 2011 National Weather Service strategic plan.