**TEXAS TECH UNIVERSITY**

**National Wind Institute**

**Wednesday October 26, 2016**
**3:30 p.m. to 4:30 p.m.**
**Experimental Sciences Building 120**
**Reception to follow.**

# The McDonald-Mehta Lecture Series Presents:

## Catastrophe Modeling: Applications in Multidisciplinary Wind Science and Engineering


## Tim Doggett, Ph.D.

**Director of Atmospheric Perils**

**Berkshire Hathaway Specialty Insurance**



**Abstract:**

Catastrophe models have become an integral tool used by the insurance industry for quantifying risk to their business from natural disasters. Robust model development requires detailed scientific understanding of the physical processes being modeled, as well as engineering knowledge of how buildings of different construction types and materials are likely to be damaged. For perils such as tropical cyclones and severe convective storms, insights from wind engineering and atmospheric sciences are crucial.

The presentation will provide a brief overview of catastrophe models and their applications within the insurance industry. The role of atmospheric science and wind engineering expertise in catastrophe modeling will be highlighted, along with examples illustrating their importance. Finally, future challenges in natural disaster risk assessment will be discussed, and potential areas of research will be identified that could benefit shortcomings in the models.


**Short Biography of Speaker:**

Dr. Tim Doggett is currently the Director of Atmospheric Perils at Berkshire Hathaway Specialty Insurance in Boston, where he oversees natural catastrophe risk assessment to their book of business from tropically cyclones, severe thunderstorms, winter storms, and storm surge. Prior to working for BHSI, Tim spent 12 years with AIR Worldwide managing the development of a wide array of catastrophe models and working with clients to better understand risks that could potentially impact their businesses.

Dr. Doggett is no stranger to West Texas. He received his MS (1992) and Ph.D. (1996) in Atmospheric Science from TTU, as well as being an Assistant Professor with the TTU Geoscience Group until 2003. In between, he was a NCAR/UCAR postdoctoral researcher working with the Lubbock NWS, where he gained valuable experience dealing with high-resolution numerical simulations and real-time data processing.