



TEXAS TECH UNIVERSITY  
DEPARTMENT OF COMPUTER SCIENCE  
WHITACRE COLLEGE OF ENGINEERING



## U-REASON SEMINAR SERIES FALL - 2013

# Science Application Big Data Analytics and the Relations to Other Big Data Applications

By **Dr. Jay Lofstead**  
**Sandia National Laboratories**

*Date: December 10, 2013 (Tuesday)*

*Time: 3:40pm-4:40pm*

*Venue: ECE 226 (Bullen Room)*

**Faculty Coordinator: Dr. Yong Chen ([yong.chen@ttu.edu](mailto:yong.chen@ttu.edu))**

**Student Coordinators: Navaneeth Thiagarajan, Dan Ferguson, Lakhan Jhavar**

### **Abstract:**

While the term "Big Data" has become a popular buzz word today, the concept of "Big Data" is quite old. Science simulations and analysis have been dealing with big data for decades requiring considerable innovation to continue enabling scientific insights. While the newer Big Data technologies have limited applicability for traditional science applications, there are some overlaps. This talk will discuss some history and discussion of the evolution of Big Data and how science applications use this technology with analytics routines to generate scientific insights.

### **Speaker Bio:**

Dr. Jay Lofstead is a senior member of technical staff at Sandia National Laboratories in Albuquerque, NM in the Scalable System Software group. His primary responsibilities are to explore data management issues for supporting big science applications. Previously, he co-invented the ADIOS IO API. Prior to graduate school he was the primary architect and developer for the McKesson Provider Technologies Portal tool that provides visual integration of multiple back-end healthcare systems with a user-customizable workflow. Earlier, he developed programming packages for Siemens Energy and Automation for their embedded industrial controls. Jay is a three-time Georgia Tech graduate, most recently in 2010 with his PhD in Computer Science.

