

UNIVERSITY OF NORTH TEXAS MATHEMATICS UNDERGRADUATE COLLOQUIUM

**Tuesday,
Dec 3, 2013
4:00 - 5:00 PM**

**General
Academic
Building,
Room 105**

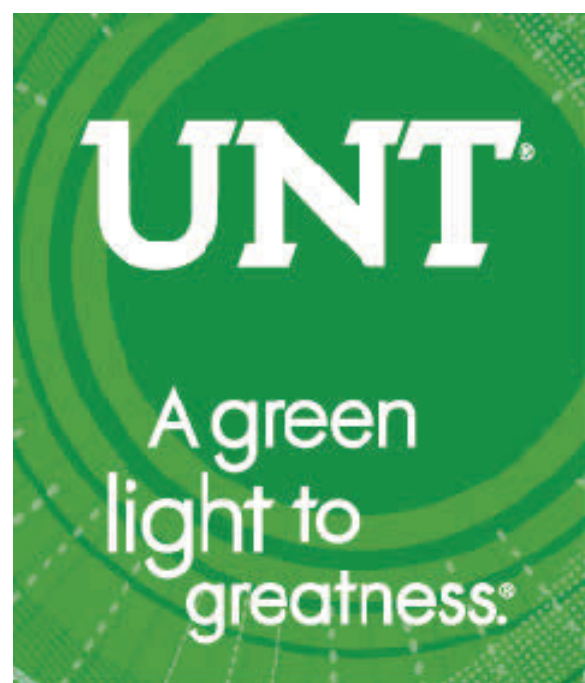
A pre-lecture reception with cookies, coffee and tea will be held at 3:30 PM in the General Academic Building, Room 472.

The colloquium is sponsored by UNT Department of Mathematics and the *RTG in Logic & Dynamics*, a research training group supported by the National Science Foundation and the University of North Texas.

Department of Mathematics
University of North Texas
1155 Union Circle #311430
Denton, TX 76203
(940) 565-2155

rtg@unt.edu
www.math.unt.edu/rtg

UNT campus parking
information can be found at:
<http://www.unt.edu/transit/>



Paul Constantine

Colorado School of Mines

Paul Constantine is the Ben L. Fryrear Assistant Professor of Applied Mathematics and Statistics at Colorado School of Mines. He received his Ph.D. in 2009 from Stanford's Institute for Computational and Mathematical Engineering and was awarded the John von Neumann Research Fellowship at Sandia National Labs. He received his B.A. in mathematics with a minor in music from UNT in 2002. Paul's interests include methods for dimension reduction and reduced order modeling in the context of uncertainty quantification.



Computing with Randomness: A Gentle Intro to Uncertainty Quantification



It is occasionally useful to reexamine motivating questions and paradigms behind our research activities. In this student-oriented seminar, we will fly above the methods' details and discuss the issues that compel us to address uncertainties in computational modeling. Think: less math and more stories. I won't promise that

we'll answer any questions satisfactorily. In fact, if all goes well, you'll leave the 50 minute discussion pondering, "How much can I trust computer models of the so-called real world to make accurate predictions and inform critical decisions?"

This seminar will combine the first two lectures from a graduate course on uncertainty quantification I taught at Stanford. We'll have some open discussion, and I'll show an end-to-end example of predicting the time it takes a ball dropped from the top of a tower to hit the ground.