

Spring 2018 Colloquium

Department of Physics & Astronomy, TAMU-Commerce

April 12, Thursday, 4-5 PM in Science Building 127

(coffee and cookies will be served at 3:50 PM)

Bayesian Statistics in Physics and Astronomy

**An Introduction to Bayesian Statistical Analysis
with an Application to Insurance Claims Data**

Dr. Thomas Boucher

Mathematics, Texas A&M University-Commerce



Dr. Boucher earned BS (1996) and MS (1998) degrees in Mathematics at the University of Massachusetts-Lowell, and a Ph.D. degree (2003) in Statistics at Texas A&M University in College Station. His Ph.D. research topic was on nonlinear time series. He worked as a post-doc at Virginia Tech from 2003-2005 in a similar area and branching out into general state Markov chain theory. From 2005-2012, Dr. Boucher was an assistant professor/associate professor and Director of the Center for Statistical Consulting at Plymouth State University in Plymouth, NH. In 2012 Dr. Boucher became an assistant (soon to be associate) professor of Mathematics at Texas A&M-Commerce. More information about Dr. Boucher can be found at <http://faculty.tamuc.edu/tboucher/>

Abstract

The talk will give a brief overview of Bayesian statistical inference and Markov Chain Monte Carlo (MCMC) methods before proceeding to an application to insurance claims data, involving the use of MCMC methods to model a zero-inflated Poisson distribution for the claims data.