



CLIM Program Transition Workshop

May 14-16, 2018

Lecture: *Modeling Weather-related House Insurance Claims with Machine Learning Approach*

Speaker: Asim Dey

Abstract:

Insurance industry is one of the most vulnerable sectors to climate change. Assessment of the future number of claims and incurred losses is critical for disaster preparedness and risk management. In this project, we study the effect of precipitation on joint dynamics of weather-induced home insurance claims and losses. We discuss new statistical and machine learning approaches to forecasting future climate-induced claim dynamics while accounting for nonlinear multivariate dependence structure and quantifying for the associated modeling and data input uncertainties. We illustrate our methodology by application to attribution analysis and forecasting of weather-induced home insurance claims in Canada.