The Department of Mathematics presents

A Mathematics Colloquium

Monday January 25, 4:00–4:50pm
Bond Hall 422

Speaker: Andrew Hoegh (Virginia Tech)
Title: Spatiotemporal Model Fusion: Multiscale Modeling of Civil Unrest

Abstract: Civil unrest is a complicated, multifaceted social phenomenon for which forecasting of upcoming protests is a challenging problem. Relevant data for predicting future protests consist of a massive set of heterogenous data sources, primarily from social media. Using a modular approach to extract pertinent information from disparate data sources, a spatiotemporal multiscale framework is developed to fuse predictions from algorithms mining social media. This novel multiscale spatiotemporal fusion framework coupled with an efficient sequential Monte Carlo algorithm provides rapid, online computation that is scalable for massive, areal spatiotemporal datasets.

Refreshments provided by Prof. Berget