

**University of California, Irvine
Statistics Seminar**

***“Variable Selection in Mixture of Regression Models:
Uncovering Cluster Structure and Relevant Features”***

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**4 p.m., Thursday, October 8, 2020
Join via Zoom: <https://uci.zoom.us/j/99193076115>**

The problem of variable selection in finite mixture of regression models has been the focus of some research over the last decade. The goal is to uncover latent classes and identify component-specific relevant predictors in a unified manner. This is achieved by combining ideas of mixture models, regression models and variable selection. I will present some of the methods we have proposed in this context, including (1) a stochastic partitioning method to relate two high-dimensional datasets, (2) a penalized mixture of multivariate generalized linear regression models, and (3) a mixture of regression trees approach. I will illustrate the methods with various applications.