

STATISTICAL SCIENCES SEMINAR SERIES

When:	Thursday, September 28, 2017
Time:	3:30 – 4:30 pm Refreshments at 3:15 pm
Where:	
Speaker:	NAVEEN NARISSETTY , University of Illinois at Urbana-Champaign
Host:	Stanislav Volgushev

Bayesian Approaches for Quantile Regression Under Censoring

Quantile regression provides a more comprehensive relationship between response and covariates of interest compared to mean regression and is especially advantageous for censored data.

In this talk, I will first discuss a new Bayesian approach for censored quantile regression that can handle high covariates. Our approach uses continuous spike and slab priors with sample size dependent parameters to induce adaptive shrinkage and sparsity. A scalable Gibbs sampling algorithm for posterior computation will be presented, which has desired theoretical properties.

Our theoretical results deal with the challenges raised by non-convexity of the objective function involved. I will also briefly describe a new data augmentation method for estimation in censored quantile regression that can handle an arbitrary type of censoring.

