



THE UNIVERSITY OF  
CHICAGO

Department of Statistics

STATISTICS COLLOQUIUM

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XUMING HE

Department of Statistics  
University of Michigan

Censored Quantile Regression by Data Augmentation

MONDAY, April 30, 2018 at 4:30 PM

Eckhart 133, 5734 S. University Avenue

*Refreshments before the seminar at 4:00PM in Jones 111*

### ABSTRACT

Quantile regression provides an attractive tool to the analysis of censored responses, because the conditional quantile functions are often informative with desirable robustness properties, and moreover, the quantiles are often identifiable while the conditional mean functions are not. Existing methods of estimation for censored quantiles are mostly limited to singly left- or right-censored data, with some attempts made to extend the methods to doubly-censored data. We propose a new and unified approach, based on a variation of the data augmentation algorithm, to censored quantile regression estimation. The proposed method is able to handle different forms of censoring including doubly censored and interval censored data, and the resulting estimates improve on the performance of the best known estimators with singly censored data.

The talk is based on joint work with Xiaorong Yang and Naveen Narisetty.

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For further information and inquiries about building access for persons with disabilities, please contact Jonathan Rodriguez at 773.702.8333 or send him an email at [jgrodriquez@galton.uchicago.edu](mailto:jgrodriquez@galton.uchicago.edu). If you wish to subscribe to our email list, please visit the following website:  
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