

**MICHIGAN STATE UNIVERSITY**  
Department of Statistics and Probability

# **COLLOQUIUM**

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## **The Search for Best Linear and Quadratic Moment Conditions of the SAR Model**

**Tuesday, April 23, 2019**  
**10:20 AM - 11:10 AM**  
**Refreshments 10:00 AM**  
**C405 Wells Hall**

### **Abstract**

We consider the estimation of the spatial auto regressive (SAR) model where the disturbances are homoskedastic but not necessarily normally distributed. For estimation of such a model, we provide an analytic procedure to find and construct best linear and quadratic moments for the GMM estimation of the model. We discuss possible implications of the additional moments on aspects of model structures beyond those best linear-quadratic moments for the estimation of the SAR model with normal disturbances and possibly unknown heteroskedasticity.

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