

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

## COLLOQUIUM

**Bimal Sinha**

University of Maryland-Baltimore County

**EXACT INFERENCE BASED ON SINGLE SYNTHETIC DATA FOR MULTIVARIATE  
NORMAL AND UNIVARIATE LINEAR REGRESSION NORMAL MODELS**

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10:20 a.m. - 11:10 am  
Refreshments 10:00 am  
C405 Wells Hall

### **Abstract**

Statistical agencies such as the US Census Bureau routinely collect data under law, parts of which are highly sensitive and hence require privacy protection before the data can be released to the public. Creating synthetic data is a very common simple method to hide real data, but its exact analysis is far from being simple. We will consider two synthetic data generation schemes and address exact inferential methods based on a multivariate normal model as well as a multiple linear regression model.

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