# BI-CO MATHEMATICS COLLOQUIUM

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### Marymount University

## *"Bayesian Model Selection: Removing Our Biases and Allowing the Data to Guide Us"*

**Monday, November 12, 2018**
*Talk at 4:00 – Park 338*
*Tea at 3:30 – Park 361, Math Lounge*

**Abstract:**
Finding patterns in data and developing mathematical models are often subjective exercises. By using Bayesian model selection we can add objectivity to the process and allow the data to identify patterns and select models. I will provide a brief introduction to Bayesian model selection and present examples that display the versatility of this tool. Examples will include extracting the pancreatic insulin-secretion rate from discrete clinical data to quantify beta-cell function in impaired glucose tolerance and type-2 diabetes subjects, identifying patterns in handwriting, and assessing maps when redistricting for elections.

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