

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

JAMES FRANCIS HANNAN LECTURE SERIES

James Berger
Duke University

Bayesian multiplicity adjustment and subgroup analysis

Thursday, April 25, 2019

3:00 PM - 4:00 AM

C405 Wells Hall

Abstract

The Bayesian approach to controlling for multiple testing and other multiplicities will first be reviewed. The most interesting feature of this approach is that it occurs through the prior probabilities assigned to models/hypotheses and is, hence, independent of the error structure of the data, the main obstacle to adjustment for multiplicity in non-Bayesian statistics. Not all assignments of prior probabilities adjust for multiplicity, however, and assignments in huge model spaces typically require a mix of subjective assignment and appropriate hierarchical modeling. These issues will be reviewed through a variety of pedagogical examples. Extensive discussion of the Bayesian approach to subgroup analysis will be given, including its relevance to personalized medicine.

To request an interpreter or other accommodations for people with disabilities, please call the Department of Statistics and Probability at 517-355-9589.