University of California, Irvine
Statistics Seminar

Comparing Objective and Subjective Bayes Factors for the Two-Sample Comparison

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4 p.m., 6011 Bren Hall
(Bldg. #314 on campus map)

Many Bayes factors have been proposed for comparing population means in two-sample (independent samples) studies. Recently, Wang and Liu (2015) presented an "objective" Bayes factor (BF) as an alternative to a "subjective" one presented by Gönen et al. (2005). We refer to these throughout as WBF and GBF. Their report was evidently intended to show the superiority of WBF to GBF based on "undesirable behavior" of the latter relative to the former. As is well known, one procedure can be preferred to another relative to certain criteria, e.g., "objective" versus "subjective." A wonderful aspect of Bayesian models is that they provide an opportunity to "lay all cards on the table." What distinguishes the various BFs in the two-sample problem is the choice of priors (cards) for the model parameters. We discuss various desiderata of BFs that have been proposed and shine a subjective light on some so-called "objective" criteria.

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