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BIOSTATISTICS SEMINAR

Confidence Densities, Uninformative Priors, and the Bootstrap

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Abstract: There have been a series of conferences around the world under the label "BFF," standing for Bayesian, Frequentist, and Fiducial. I will give a version of the keynote talk at the most recent one. A general problem of BFF interest goes as follows: A family of densities with vector parameter "mu" has yielded data "X" from which the statistician wishes to infer a real-valued parameter theta = t(mu). For example, X might be multivariate normal, X~N(m,V), and theta the trace of V. A statistical holy grail task is to find a convincing posterior density of theta given X, when there is no prior information on the distribution of mu. A suite of more or less related answers have been proposed: uninformative priors, matching priors, fiducial methods, and confidence densities (the last being derivatives of confidence distributions.) This talk reviews the various theories, connecting them to bootstrap methods for their implementation.

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Thursday October 13, 2016, 3:30 PM Room T-639, Health Sciences Refreshments served at 3:15 PM

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