

Title:

Adjusted Bayesian inference for selected parameters

Abstract:

We address the problem of providing inference for parameters selected after viewing the data from a Bayesian perspective. We argue that if the parameter is elicited a non-informative prior, or if it is a "fixed" unknown constant, then it is necessary to adjust the Bayesian inference for selection. Our main contribution is a Bayesian framework for providing inference for selected parameters. Our second contribution is the introduction of Bayesian False Discovery Rate controlling methodology that is a generalization of existing Bayesian FDR methods that are only defined in the two-group mixture model. We illustrate our results by applying them to simulated data.