

## SOME CONSIDERATIONS ON THE BAYESIAN INFERENCE FOR THE RATIO OF TWO BINOMIAL PROPORTIONS

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### Abstract

A ratio of independent binomial proportions is a parameter of interest in many research applications. In this paper, we treat the problem of comparing two unknown success probabilities,  $\theta_1$  and  $\theta_2$ , from independent binomial populations through their ratio. Our focus is on a Bayesian analysis of the problem and our emphasis is on the construction of informative and noninformative priors for the parameter of interest, namely  $\psi = \frac{\theta_1}{\theta_2}$ .

**Keywords and phrases:** reference prior, Jeffreys prior, conditional specified prior.

Received December 7, 2011

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