## Choosing the Best $\phi$ -Divergence Goodness-of-Fit Statistic in Multinomial Sampling with Linear Constraints

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Abstract: In this paper we present a simulation study to analyze the behavior of the  $\phi$ -divergence test statistics in the problem of goodness-of-fit for loglinear models with linear constraints and multinomial sampling. We pay special attention to the Rényi's and  $I_r$ -divergence measures.

Keywords: multinomial sampling; restricted maximum likelihood estimator; goodness-of-fit;  $I_r$ -divergence measure; Rényi's divergence measure;

AMS Subject Classification: 62H15; 62H17;