

GRADUATE SEMINAR

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An Introduction to Inverse Binomial Sampling

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Abstract: A mathematical statement of the problem is as follows. Let X_1, X_2, \dots and Y_1, Y_2, \dots be two independent sequences of Bernoulli random variables with success probabilities p_1 and p_2 , respectively. The observations are done according to the sequential sampling schemes with Markov stopping times v_1 and v_2 . From the results of observations $X^{(v_1)} = (X_1, \dots, X_{v_1})$ and $Y^{(v_2)} = (Y_1, \dots, Y_{v_2})$ it is necessary to identify the most accurate method of estimation of the ratio $\theta = \frac{p_1}{p_2}$. There are two reasons which make the problem difficult to start. After recognizing the main problems we met, we can start our research with inverse sampling method.

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