

GRADUATE SEMINAR

Thuntida Ngamkham

On confidence intervals for a ratio of binomial proportions

PhD Student supervised by Andrei Volodin

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3:30 PM

Math Lounge (CW307.20)

Abstract: A general problem of the interval estimation for a ratio of two binomial proportions according to data from two independent samples is considered. Each sample may be obtained in the framework of direct or inverse binomial sampling. Asymptotic confidence intervals are constructed in accordance with different types of sampling schemes. In this talk I would like to concentrate on two cases of direct-direct and inverse-direct binomial samplings. In the latter situation it is possible to plan the sample size for the second sample according to the number of successes in the first sample. This, as it is shown by the results of statistical modeling, provides the intervals with confidence level which closer to the nominal value. My goal is to show that the normal approximation for estimates of the ratio of proportions are reliable for a construction of confidence intervals.