

CONFIDENCE INTERVALS FOR AVERAGE SUCCESS PROBABILITIES

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Abstract: We provide Buehler-optimal one-sided and valid two-sided confidence intervals for the average success probability of a possibly inhomogeneous fixed length Bernoulli chain, based on the number of observed successes. Contrary to some claims in the literature, the one-sided Clopper–Pearson intervals for the homogeneous case are not completely robust here, not even if applied to hypergeometric estimation problems.

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