THE CONVERGENCE RATE OF FIXED-WIDTH SEQUENTIAL CONFIDENCE INTERVALS FOR A PARAMETER OF AN EXPONENTIAL DISTRIBUTION

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Abstract. In this paper we consider sequential fixed-width confidence interval estimation for a parameter $\theta = a\mu + b\sigma$ with a and b being given constants when the location parameter μ and the scale parameter σ of the negative exponential distribution are unknown. We investigate the rate of convergence of the coverage probability for fixed-width sequential confidence intervals of θ.

Key words and phrases: Two-parameter exponential, sequential confidence intervals, coverage probability, convergence rate.