

Bounds on Variances of Coherent System Lifetimes

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We present upper bounds on variances of lifetimes of coherent systems expressed in the units of common lifetime variance of each system component. We examine two cases of systems composed of elements whose continuous lifetimes are either independent identically distributed or merely exchangeable. In the first case, we consider general coherent and mixed systems. In the latter, we restrict ourselves to the k -out-of- n systems. We also discuss attainability conditions.