

ON THE RELIABILITY OF FAIL-SAFE SYSTEMS

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***Abstract:** The paper deals with the stochastic comparison of the times to failure of fail-safe systems ($n-1$ -out-of- n systems). Considering the aggregation of the states with one failed component we establish a connection between ordering properties of the sums of independent exponential random variables and recent results on the comparison of order statistics in exponential random sequences.*

***Key words:** fail-safe system, order statistics, exponential distribution, stochastic ordering, hazard rate ordering.*

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