

PROBABILITY OF FAILURE WITH DISCRETE CLAIM DISTRIBUTION

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Abstract: A concept of the probability of failure is introduced. Some popular methods of exact computation of ruin probability are adopted to compute failure probability. Based on the formula presented in [5] a generalization of a ruin probability algorithm is proposed that can also be used for failure probability. The algorithm's computational complexity is studied and it is proved to be more effective for failure probability than for ruin probability. Finally, some numerical examples for failure probability computations are given.

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Key words and phrases: Failure probability, ruin probability, finite time.

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