Inequalities for the ruin probability in a mixed renewal risk model

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Abstract

Given a compound mixed renewal process S under an original probability measure P, a full characterization of the class of all probability measures Q on the domain of P that are progressively equivalent to P and preserve the structure of S, was presented in Tzaninis & Macheras [2]. The latter characterization is exploited in order to obtain bounds for the probability of ruin within finite and infinite time, as well as an explicit formula for the probability of ruin in infinite time which leads to an exponential double bound for it.

Keywords: Compound mixed renewal process; change of measures; martingales; regular conditional probabilities; ruin probability

References

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