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The adjustment function in ruin estimates under interest force. (English) Zbl 0910.62107
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Summary: We continue our discussion of infinite time ruin probabilities in continuous time in a compound Poisson process with a constant premium rate and a constant interest force. Using appropriate conditions the ruin probability is exponentially bounded. The usual adjustment coefficient is replaced by an adjustment function depending in an intricate way on the initial reserve, the interest force and all ingredients of the compound Poisson process. After deriving general bounds we also give expansions for the case where the interest force is small.

MSC:

62P05 Applications of statistics to actuarial sciences and financial mathematics Cited in 28 Documents
91B30 Risk theory, insurance (MSC2010)

Keywords:

[interest rate](#); [Lundberg inequality](#); [adjustment function](#); [ruin probabilities](#); [compound Poisson process](#)

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References:

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