TAIL PROBABILITIES FOR A RISK PROCESS WITH SUBEXPONENTIAL JUMPS IN A REGENERATIVE AND DIFFUSION ENVIRONMENT

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Abstract: In this paper we find a nonexponential Lundberg approximation of the ruin probability in a Cox model, in which a governing process has a regenerative structure and claims are light-tailed or have an intermediate regularly varying distribution. Examples include an intensity process being reflected Brownian motion, square functions of the Ornstein-Uhlenbeck process and splitting reflected Brownian bridges. In particular, we consider a non-Markovian intensity process.

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