RUIN PROBABILITIES OF A NEW RISK MODEL

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Abstract

In this paper, a new risk model is proposed which takes the entrance process into account. We propose a claim process according to the en- trance process and build a new risk model using this process. At rst, we obtain some properties of the claim process and derive exponential upper bounds for nite time ruin probabilities and ultimate ruin probabilities when the entrance process is a homogeneous Poisson process. Then we extend the risk process by assuming the entrance process to be a time- dependent Poisson process and derive upper bounds in this case.

Key words: Reserve process, risk model, ruin probability
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