ASYMPTOTIC RUIN PROBABILITIES OF AN ENTRANCE PROCESSES BASED RISK MODEL WITH INTEREST FORCE AND REGULARLY VARYING CLAIMS

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Abstract: An insurance risk model with constant interest force and the claim process being driven by an entrance process is investigated. Under the conditions that the entrance process is a renewal process and the claim size is of regularly varying tailed, an asymptotic behavior for the ruin probability as the initial capital tends to infinity is obtained. As a consequence, a similar result also holds for the case that the entrance process is a homogeneous Poisson process.