Brownian Motion을 이용한 보험 상품의 Ruin Model 연구

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Abstract

We consider a ruin model where the input of surplus is formed by a Brownian motion. If the level of surplus exceeds V, then we assume that a insurer invest in other financial institution. In this paper, we apply martingale methods to the surplus process and obtain the expected period from initial surplus x to the point where the level of surplus reaches V or 0; T. With this results, expectation and variance of the number of investments the level of surplus reaches V during T, and the expectation of the level of surplus in T.