INEQUALITIES FOR THE PROBABILITY OF RUIN IN A REINSURANCE RISK MODEL WITH m–DEPENDENCE ASSUMPTIONS

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Abstract. In this article, we investigate a discrete-time risk model. The risk model includes the quota $-(\alpha, \beta)$ reinsurance contract effect on the surplus process. The premium process and claim process are assumed to be m-dependent sequences of identically distributed non-negative random variables. Using Martingale and inductive methods, We obtained upper bounds for the ultimate ruin probability of an insurance company. Finally, we present a numerical example to show the efficiency of the methods.

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