

EXPONENTIAL BEHAVIOR IN THE PRESENCE OF DEPENDENCE IN RISK THEORY

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Abstract

We consider an insurance portfolio situation where there is possible dependence between the waiting time for a claim and its actual size. By employing the underlying random walk structure we obtain rather explicit exponential estimates for infinite and finite time ruin probabilities in the case of light-tailed claim sizes. The results are illustrated with several examples worked out for specific dependence structures.

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