

# Ruin Probabilities for a Double Renewal Risk Model with Frequent Premium Arrivals

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## Abstract

In this paper a double renewal risk model is studied. The claims represent i.i.d. sequence of random variables and the premiums represent another sequence of random variables with lower extended negative dependence. The corresponding two arrival processes have different intensities, which correspond to consideration of frequent arrivals of premiums. The ruin probability over a finite horizon is asymptotically estimated when the initial capital tends to infinity.

**Keywords:** asymptotics; premium process; claim process; multivariate regular variation.

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