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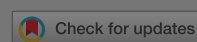
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# Ruin probabilities in classical risk models with gamma claims

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## Abstract

In this paper, we provide three equivalent expressions for ruin probabilities in a Cramér–Lundberg model with gamma distributed claims. The results are solutions of integro-differential equations, derived by means of (inverse) Laplace transforms. All the three formulas have infinite series forms, two involving Mittag-Leffler functions and the third one involving moments of the claims distribution. This last result applies to any other cl

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