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Performance of the Strong Stability Method in the Univariate Classical Risk Model

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Abstract : In this paper, we study the performance of the strong stability method of the univariate classical risk model. We interest to the stability bounds established using two approaches. The first based on the strong stability method developed for a general Markov chains. The second approach based on the regenerative processes theory . By adopting an algorithmic procedure, we study the performance of the stability method in the case of exponential distribution claim amounts. After presenting numerically and graphically the stability bounds, an interpretation and comparison of the results have been done.

Keywords : Marcov chain, regenerative process, risk model, ruin probability, strong stability
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