Some approximation results for ruin probabilities in the classical risk model

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We study the problem of continuity in risk models. In the classical risk model with Poisson arrivals, we use a simple technique for continuity estimation for ruin probability and the defective tail of the deficit at ruin. Continuity inequalities are derived, which are expressed in terms of various probabilistic metrics. We also give some numerical illustrations to investigate the accuracy of the approximations.

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