On the Bivariate Compound Pólya process

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In this paper we consider a compound Pólya process. Next, we define a bivariate counting process as a compound negative binomial process with bivariate geometric compounding distribution. The resulting process is called a Bivariate compound Pólya process. Then we consider a risk model in which the claim counting process is a Bivariate compound Pólya process and call it a Bivariate compound Pólya risk model. We also consider two types of ruin probability for this risk model and find the corresponding Laplace transforms. We discuss in detail the particular case of exponentially distributed claims.

References

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