



Article from

ARCH 2017.1 Proceedings

A Simple Approach to Evaluate the Distribution of Aggregate Claims

Ranee Thiagarajah - Illinois State University

In the context of insurance, the aggregate claims can be represented as a sum of individual claim amounts with a random number of claim counts. For most choices of distributions of claim counts and claim severity, the exact distribution function or the corresponding probability (density) function is difficult to obtain. This paper examines a simple, but reasonably accurate approximation method for computing tail probabilities and probability (density) functions of the aggregate claims for some combinations of frequency and severity distributions. The approximate probabilities are then compared numerically with the exact results obtained through simulations.