

Ruin Related Quantities in a Risk Model Based on Time Series for Count Data

by

Hélène Cossette, Université Laval

Etienne Marceau, Université Laval

Véronique Maume-Deschamps, ISFA Lyon 1

Florent Toureille, Université Laval and ISFA Lyon 1

We consider various specifications of the general discrete time risk model in which a serial dependence structure is introduced between the claims for each period. We consider risk models based on compound distributions assuming a Poisson INAR(1) process as specific dependence structure. Within this model, we investigate the expected aggregate claim amount and we derive expressions for a function that allows us to find the Lundberg coefficient. We also discuss the expected discounted Gerber-Shiu penalty function in finite and infinite time.