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Optimal reinsurance for a book of dependent classes of insurance business

Kam Chuen Yuen

*Department of Statistics and Actuarial Science,
The University of Hong Kong, Pokfulam Road, Hong Kong*

Abstract

In this talk, we consider a book of dependent classes of insurance business. It is assumed that the correlation among the claim number processes are due a common shock. Under the risk model with common shock dependence, we derive closed-form expressions for the optimal proportional reinsurance strategy and the corresponding value function by maximizing the expected exponential utility, and present a numerical example to illustrate the impact of a model parameter on the optimal strategy.

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