On modeling dependence in claim-number processes

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Abstract

In practice, an insurance company usually has several classes of business which are more or less correlated with each other. In view of the complex nature of modern insurance products, research on modeling dependent classes of business has become an important topic in the actuarial literature. This talk discusses two types of dependence in claim-number processes, namely the common shock and thinning dependence. Based on these dependence structures, ruin analysis and optimal reinsurance are considered.