

An Extension of Generalized Linear Models for dependent frequency and severity

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December 2017

Abstract

In non-life insurance pricing, Generalized Linear models are used to estimate the pure premium through the product of the claim frequency and the claim severity. Traditionally, the methods in the Generalized Linear models imply an independence between claim count and claim amount. In practice the claim counts and amounts are often dependent. In this thesis, the two models where the claim counts and amounts are classically independent and a new approach where they are dependent will be analyzed and compared. The underlying data for the models considered is derived from a Swedish motorcycle insurance.

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