

Estimation of Claim Numbers in Automobile Insurance

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The use of bonus-malus systems in compulsory liability automobile insurance is a worldwide applied method for premium pricing. If certain assumptions hold, like the conditional Poisson distribution of the policyholders claim number, then an interesting task is to evaluate the so called claims frequency of the individuals. Here we introduce 3 techniques, two is based on the bonus-malus class, and the third based on claims history. The article is devoted to choose the method, which fits to the frequency parameters the best for certain input parameters. For measuring the goodness-of-fit we will use scores, similar to better known divergence measures. The detailed method is also suitable to compare bonus-malus systems in the sense that how much information they contain about drivers.

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