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Discrete-Time Risk Models for Non-Life Insurance Business

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The so-called risk renewal model with certain supplements describing the investment environment is commonly used to describe the non-life insurance business. The main part of such models is described by the flow of claims. If claims are considered to be integer-valued, then we get the so-called discrete time risk renewal model. If we additionally know that claims are identically distributed, then a homogeneous discrete-time risk model is obtained. The critical characteristics of such a model can be calculated using recursive formulas. If the homogeneity of the model is abandoned, it is also possible to apply analogous recursive formulas to calculate the critical characteristics of the model. However, additional problems arise related to finding initial values. The presentation will discuss two fundamentally different ways of finding the necessary starting values for a seasonal discrete-time risk model. The results presented in articles [1] and [2] will be discussed during the presentation.

- [1] A. Grigutis, J. Šiaulyš, Recurrent sequences play for survival probability of discrete time risk model, *Symmetry*, 12(12), 2111–2131, 2020.
- [2] A. Grigutis, J. Jankauskas, J. Šiaulyš, Multi seasonal discrete time risk model revisited, arXiv:2207.03196v1.

Company Recommendation Empowering the Agent and Publicly Available

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Business management requires
the selection of suitable partners
experience-based skill or require
important aspect to get an ex
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to estimate the collaboration e
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