Kyprianou, Andreas E.; **Zhou, Xiaowen**

General tax structures and the Lévy insurance risk model. (English) Zbl 1210.60098

J. Appl. Probab. 46, No. 4, 1146-1156 (2009).

This paper considers a surplus process in the form of a general spectrally negative Levy process, that is commonly referred to as a Levy insurance risk process, with tax payments of a more general structure than in the papers written recently.

They established new identities for the two-sided exit problem, a generalized version of the Gerber-Shiu function, as well as the net present value of tax paid until ruin.

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MSC:

60K05	Renewal theory
60K15	Markov renewal processes, semi-Markov processes
91B30	Risk theory, insurance (MSC2010)
60G70	Extreme value theory; extremal stochastic processes
60J55	Local time and additive functionals

Keywords:

reflected Levy process; passage problem; integrated exponential Levy process; insurance risk process; ruin; excursion theory

Full Text: DOI arXiv

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