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Dividend problem with Parisian delay for a spectrally negative Lévy risk process

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In this paper we consider dividend problem for an insurance company whose risk evolves as a spectrally negative Lévy process (in the absence of dividend payments) when Parisian delay is applied. The objective function is given by the cumulative discounted dividends received until the moment of ruin when so-called barrier strategy is applied. Additionally we will consider two possibilities of delay. In the first scenario ruin happens when the surplus process stays below zero longer than fixed amount of time $\zeta > 0$. In the second case there is a time lag d between decision of paying dividends and implementation.

Subjects: **Portfolio Management (q-fin.PM)**; Probability (math.PR);
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