

## **Ruin theory with Parisian delays**

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Inspired by Parisian barrier options, we consider the following definition of ruin for an insurance risk model: the surplus process is allowed to spend time under a pre-specified default level before ruin is recognized. The same idea can also be applied to the classical dividend barrier strategy. Using the modern language of scale functions, we study Gerber-Shiu functions and dividend payments in an insurance risk model driven by a spectrally negative Levy process of bounded variation. In the process, a generalization of the two-sided exit problem is obtained.