On distibution of the supremum of upwards skip-free random walk

(Poster)

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Following the risk insurance interpretation, we study an increasing random walk with perturbation, where perturbation is modelled by a discrete version of spectally negative Lévy process, i.e. upwards "skip-free" random walk. We obtain some useful results about its supremum by using moment generating functions, decomposition of supremum and some other approaches. We compare these results with similar ones in continuous case.

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