

ON A PARTICULAR CLASS OF SELF-DECOMPOSABLE RANDOM
VARIABLES: THE DURATIONS OF BESSEL EXCURSIONS STRADDLING
INDEPENDENT EXPONENTIAL TIMES

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Abstract: The distributional properties of the duration of a recurrent Bessel process straddling an independent exponential time are studied in detail. Although our study may be considered as a particular case of Winkel's in [25], the infinite divisibility structure of these Bessel durations is particularly rich and we develop algebraic properties for a family of random variables arising from the Lévy measures of these durations.

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