

LARGE DEVIATION THEOREMS FOR WEIGHTED COMPOUND
POISSON SUMS

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Abstract: In this paper we present two large deviation results for weighted compound sums $\sum_{i=1}^N a_i X_i$, where X_i 's are i.i.d. (possibly lattice) random variables, a_i 's are non-negative real numbers, and N is a Poisson variable. These results are generalizations of approximations for non-weighted compound sums and for non-compound weighted sums.

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