

MULTIVARIATE LARGE DEVIATIONS WITH STABLE LIMIT LAWS

Alexander Zaigraev

Abstract: The large deviation problem for sums of i.i.d. random vectors is considered. It is assumed that the underlying distribution is absolutely continuous and its density is of regular variation. An asymptotic expression for the probability of large deviations is established in the case of a non-normal stable limit law. The role of the maximal summand is also emphasized.

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Key words and phrases: sums of i.i.d. random vectors, local limit theorem, regular variation, maximal summand.

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