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Precise Large Deviations for Sums of Negatively Associated Random Variables with Common Dominatedly Varying Tails

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摘要

关键词   negatively associated   dominatedly varying tail   precise large deviation

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Abstract In this paper, we obtain results on precise large deviations for non-random and random sums of negatively associated nonnegative random variables with common dominatedly varying tail distribution function. We discover that, under certain conditions, three precise large-deviation probabilities with different centering numbers are equivalent to each other. Furthermore, we investigate precise large deviations for sums of negatively associated nonnegative random variables with certain negatively dependent occurrences. The obtained results extend and improve the corresponding results of Ng, Tang, Yan and Yang ({\it J. Appl. Prob.}, {\bf 41}, 93--107, 2004).

Key words   negatively associated   dominatedly varying tail   precise large deviation

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