THE INEQUALITIES OF RANDOMLY WEIGHTED SUMS OF PAIRWISE NQD SEQUENCES AND ITS APPLICATION TO LIMIT THEORY

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Abstract. By using some inequalities of randomly weighted sums of pairwise NQD random variables, we investigate the single-indexed randomly weighted and double-indexed randomly weighted sums of these dependence structure. Some almost sure convergence and complete convergence results are obtained, which extend the corresponding results for the nonweighted and constant weighted cases to the case of randomly weighted. Last, some simulations are also illustrated in this paper.

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