

HÁJEK-RÉNYI-TYPE INEQUALITIES AND LAWS OF LARGE NUMBERS FOR L_q -MIXINGALE ARRAY

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Abstract. In the paper, we get the precise results of maximal inequalities and Hájek-Rényi-type inequalities for the partial sums of L_q -mixingale array ($q > 1$), which generalize and improve the results of Theorem 1 and Theorem 2 in Meng and Lin [8]. We also get the strong law of large numbers, strong growth rate and the integrability of supremum for L_q -mixingale sequence ($q > 1$), which generalize and improve the results of Corollary 1 in the above cited reference and Corollary 2 in Hansen [4]. At last, a weak law of large numbers for L_q -mixingale array ($q \geq 2$) is given.

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