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COMPLETE AND COMPLETE MOMENT CONVERGENCE FOR WEIGHTED SUMS OF $\tilde{\rho}$–MIXING RANDOM VARIABLES

FENGXIANG FENG, DINGCHENG WANG AND QUNYING WU

Abstract. In this paper, we establish complete convergence results and a complete moment convergence result and prove the equivalence of them for weighted sums of $\tilde{\rho}$-mixing random variables. Our results generalize and improve the results of Baum and Katz(1965) and Peligrad and Gut (1999). As an application, we obtain the Marcinkiewicz-Zygmund type strong law of large numbers for weighted sums of $\tilde{\rho}$-mixing random variables.

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Paper JMI-12-16

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