ON COMPLETE MOMENT CONVERGENCE FOR WEIGHTED SUMS UNDER NEGATIVELY ASSOCIATED SETUP

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Abstract. In this work, the complete moment convergence for weighted sums of negatively associated random variables is discussed without assumptions of identical distribution. Under the moment condition $E|X|^{\alpha}/(\log(1+|X|))^{\alpha/\gamma-1} < \infty$ for the case $0 < \gamma < \alpha$ with $1 < \alpha \leqslant 2$, the complete moment convergence theorem for weighted sums of negatively associated setup is presented. The main results obtained in this article extend and improve the corresponding ones of Chen and Sung (Stat. Probabil. Lett., 92: 45–52 (2014)), Sung (Stat. Pap., 52: 447–454 (2011)).

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