

Limit Theorems for Additive Functionals of Order Statistics Based on Dependent Random Variables

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Asymptotic behavior of wide class of additive functionals of order statistics is investigated. In particular, strong law of large numbers for linear combinations of functions of order statistics (L -statistics) based on weakly dependent random variables is proven. As an auxiliary result we establish the Glivenko–Cantelli theorem for φ -mixing sequences of identically distributed random variables. Also, asymptotic normality of a class of spacings statistics based on independent and identically distributed random variables is obtained.