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## LAWS OF LARGE NUMBERS OF ERDÖS-RÉNYI'S TYPE FOR NON-STATIONARY RANDOM FIELDS

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Abstract: Let  $K_r \subset R^r$  be the *r*-dimensional cartesian product of the set of positive integers and let  $\{X_{\bar{k}}, \bar{k} \in K_r\}$  be a random field - a collection of independent, not necessarily identically distributed random variables with mean zero. Under appropriate additional assumptions we derive for  $\{X_{\bar{k}}, \bar{k} \in K_r\}$  strong limit theorems of the same type as the Erdös-Rényi law of large numbers. Our results are based on the large deviation theorem of Petrov extended to random fields.

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