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ON STRONG DEVIATION THEOREMS CONCERNING ARRAY OF RANDOM VARIABLES WITH APPLICATIONS

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Abstract. In this paper, the concept of generalized relative entropy is firstly introduced as the random measure between two probability measures μ and $\tilde{\mu}$, then a class of strong deviation theorem (small deviation theorem) for array of dependent random variables is established. Based on the strong deviation theorem and its corollaries, a kind of strong deviation theorems and strong law of large numbers for row-wise negatively dependent random variables are obtained finally.

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