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Weighted Approach to Rényi Entropy

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Rényi entropy of order α is a general measure of entropy. In this paper we derive estimations for the Rényi entropy of the mixture of sources in terms of the entropy of the single sources. These relations allow to compute the Rényi entropy dimension of arbitrary order of a mixture of measures. The key for obtaining these results is our new definition of the weighted Rényi entropy. It is shown that weighted entropy is equal to the classical Rényi entropy.

Subjects: **Information Theory (cs.IT)**

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