

was obtained by Deutsch [13]. Regardless of the Tsallis entropies being non-additive, we have shown that a limit with a similar form can be reached as was shown by Deutsch's derivation which is based on the Shannon entropy. We highlight this result provides an initial step in finding more interesting applications of the Tsallis entropy in the area of quantum information for example, as a measure of information in quantum key distribution protocols for evaluating important parameters such as secret key.

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