Information potential for some probability distributions

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This talk is devoted to some properties of the entropies of some discrete or continuous probability distributions. We will focus on the information potential (IP) associated with such distributions depending on a real parameter x. The Rényi entropy and the Tsallis entropy are naturally related to IP. Convexity properties and bounds of the associated IP, useful in Information Theoretic Learning, are discussed and translated as properties of the entropies. Several examples and numerical computations illustrate the general results as well as their relationship with positive linear operators.