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A PROBABILISTIC DESCRIPTION OF THE THREE THEOREMS OF HARDY

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Abstract. The purpose of this paper will be to transpose three of Hardy's theorems to the context of unimodality, large deviation theory, and local limits theorems. In his own work, these three theorems were strategic and were used to prove among other things, certain Tauberian theorems for the Euler-Borel class. But where Hardy's results are for particular sums. Our generalizations apply to various general methods of summability; including for example, random-walk methods, and the convolution method.

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