A COMPARATIVE STUDY OF SOME TIME−FREQUENCY DISTRIBUTIONS USING RENYI CRITERION (WedAmOR1)

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Abstract :
The paper presents a quantitative comparison study of some time–frequency distributions i.e. (TFDs). The comparison is in terms of a criterion known as the Renyi measure. The assessment of the TFDs is accomplished by evaluating the Rényi measure which yields the best time–frequency resolution. We show, using synthetic as well as real–life data, that a recently proposed TFD outperforms existing TFDs. In particular, we show that this proposed TFD presents a high time–frequency resolution while suppressing the undesirable cross–terms.