Résumé de la thèse d'état de Mr Salim SBAA
Université de Annaba
Soutenu en décembre 2006

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Intitulée "Etude des techniques de détection des variations spectrales par la réallocation de la représentation énergétique temps-fréquence"

Résumé

The majority of the physical signals belong the class of the stationary per pieces multi-component signals. It consists of several sinusoidal components whose frequency and amplitude vary in the course of time. The traditional transformation of FOURIER proves inapt to detect these variations according to time, on the other hand the methods time frequency and time scale can produce considerable results to this problem. In our work, we present a technique of detection of the spectral variations by reassignment of the time frequency energy representation, because any variation is expressed by change of energy. The reassignment technique of the transformations makes it possible to focus well the distribution of energy, and by calculation of stationary index on the two dimensional distances from the reassigned time frequency image of the signal, we will be then be able to detect these variations. Among the energy distribution of the time frequency transformations, the spectrogram and its reassigned version can be selected for this mission.

Keywords : power density, spectrogram, reassignment, detection, no stationary signal, speech, distances, stationary index.