## Segmentation of Whistle Signal with Weighted Initial Membership Fuzzy Clustering

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## Abstract

For the determination of notes in the melodic whistling sounds, firstly whistling signal must be separated into segments. Therefore thresholding is performed in amplitude of energy. But in most cases, the amplitude of the energy is not at the desired level and so the desired segmentation can not come true [1].

In this study, in recommended method, firstly it is found the time-dependent fundemental frequencies with short-time fourier transform. Now that the fundamental frequency of each note is nearly same, the entropies is high. Through these entropies, coefficients are obtained and a series is created. The values of this series are taken as the initial membership value in fuzzy clustering. The cluster centers are directed according to membership values. The dominant fundamental frequencies and their boundaries are determined as fuzzy. By means of this process, determination of the notes is more right.

Keywords: Weighted Initial Membership, Fuzzy Clustering, Whistle Signal Segmentation

## References

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