Rhythmic Similarity Presentation

Annotated Bibliography

1. Foote, J. and S. Uchihashi. 2001. The beat spectrum: A new approach to rhythm analysis. *Proceedings of the 5th International Conference on Multimedia dn Expo.*

   This paper describes a novel approach to evaluating rhythmic similarity by beat spectrum. The beat spectrum is a feature set based on the periodicity of FFT similarity.

2. Foote, J., M. Cooper and U. Nam. 2002. Audio retrieval by rhythmic similarity. *Proceedings of the 3rd International Symposium on Musical Information Retrieval.*

   This paper presents an evaluation of audio retrieval using the beat spectrum method. An accuracy of 96.7% was achieved when matching 15 patterns among the 4 originating songs.

3. Paulus, J., and A. Klapuri. 2002. Measuring the similarity of rhythmic patterns. *Proceedings of the 3rd International Symposium on Musical Information Retrieval.*

   This paper describes an approach to evaluating rhythmic similarity by loudness, brightness, and MFCC feature extraction. Several proposed sub-components of the system (pattern segmentation, stochastic extraction) were not tested due to technical difficulties. Brightness, measured as spectral centroid, was found to be the most accurate feature set.