

COVER VERSION DETECTION FOR AUDIO MUSIC

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ABSTRACT

This paper describes our submitted system for the MIREX 2008 “Audio Cover Song Identification” task, the goal of which is to identify the cover versions of music songs out of a large database. The introduced method is based on various similarity measurements. Chroma features, melody, and onset are extracted and similarities between songs on each are measured independently and then combined into the overall similarity. ...

1 INTRODUCTION

The MIREX (Music Information Retrieval Evaluation eXchange) framework provides a common platform to compare and evaluate a vast variety of MIR systems. And the MIREX 2008 “Audio Cover Song Identification” task aims to evaluate state-of-art cover song detection and identification algorithms.

A cover version, or simply cover, is a new rendition (performance or recording) of a previously recorded song [1]. Usually, famous old songs like “Across The Universe” of Beatles have been re-sung and re-performed by lots of other singers and musicians. The re-performed versions are called cover versions and the goal of automatic cover song identification algorithms is to detect cover versions of the target songs in a huge music database by computers.

The system introduced in this paper is based on various similarity measurements, such as chroma feature similarity, melody similarity and tempo similarity.

2 FEATURES

2.1 Chroma feature

Hpcp

2.2 Melody

Our previous method [2].

2.3 Tempo

onset positions

3 IMPLEMENTATION

The algorithm is implemented in C++ and is for Windows platform. The execution time ...

4 EVALUATION RESULTS

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5 CONCLUSION AND FUTURE WORK

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6 ACKNOWLEDGEMENTS

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References

- [1] http://en.wikipedia.org/wiki/Cover_song.
- [2] C. Cao, M. Li, J. Liu, and Y. Yan. Singing Melody Extraction in Polyphonic Music by Harmonic Tracking. *Proc.8th International Conference on Music Information Retrieval (ISMIR)*, pages 373–374, 2007.