

MIREX 2014 AUDIO DOWNBEAT TRACKING EVALUATION: KHS1

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ABSTRACT

In this submission we present a Hidden Markov Model (HMM) based beat tracking system that simultaneously extracts downbeats, beat times, tempo, meter and rhythmic patterns, as proposed in [1]. It is trained on a dataset of Cretan, Indian, and Turkish music data.

1. MODEL DESCRIPTION

The model is identical to the big HMM published in [1].

2. DATASETS

2.1 Training data

Our training set consists of 242 audio excerpts: 42 full length pieces of Cretan leaping dance, 82 musical pieces from [2], and 58 pieces from [3].

3. REFERENCES

- [1] Andre Holzapfel, Florian Krebs, and Ajay Srinivasamurthy. Tracking the “odd”: Meter inference in a culturally diverse music corpus. In *Proc. of the 15th International Conference on Music Information Retrieval (ISMIR)*, Taipei, 2014.
- [2] A. Srinivasamurthy, A. Holzapfel, and X. Serra. In search of automatic rhythm analysis methods for Turkish and Indian art music. *Journal for New Music Research*, 43(1):94–114, 2014.
- [3] A. Srinivasamurthy and X. Serra. A supervised approach to hierarchical metrical cycle tracking from audio music recordings. In *Proc. of the 39th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP-2014)*, pages 5237–5241, Florence, Italy, May 2014.

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