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Sebastian Böck, Filip Korzeniowski
Department of Computational Perception
Johannes Kepler University Linz, Austria

ABSTRACT

This extended abstract describes the beat tracking submission: *CRFBeatDetector.2016*.

1. DESCRIPTION

For technical details of the algorithm, please refer to [3]. Instead of the originally proposed tempo inference method, it uses the comb-filter method described in [2].

2. SOURCE CODE

Code of a reference implementation of this algorithm is included in the *madmom* library [1]. It can be found online on GitHub: `http://github.com/CPJKU/madmom`.

3. REFERENCES

[1] Sebastian Böck, Filip Korzeniowski, Jan Schlüter, Florian Krebs, and Gerhard Widmer. madmom: a new Python Audio and Music Signal Processing Library. arXiv:1605.07008, 2016.

[2] Sebastian Böck, Florian Krebs, and Gerhard Widmer. Accurate tempo estimation based on recurrent neural networks and resonating comb filters. In *Proceedings of the 16th International Society for Music Information Retrieval Conference (ISMIR 2015)*, pages 625–631, Malaga, Spain, 10 2015.

[3] Filip Korzeniowski, Sebastian Böck, and Gerhard Widmer. Probabilistic extraction of beat positions from a beat activation function. In *Proceedings of the 15th International Society for Music Information Retrieval Conference (ISMIR 2014)*, pages 513–518, Taipei, Taiwan, 10 2014.