MIREX 2016 submission BK4

Sebastian Böck, Florian Krebs
Department of Computational Perception
Johannes Kepler University Linz, Austria

ABSTRACT

This extended abstract describes the downbeat tracking sub-
mission: *DBNDownBeatTracker*.

1. DESCRIPTION

For technical details of the algorithm, please refer to [2].

2. RESULTS

The algorithm achieves the highest *F-measure* on all datasets,
except Beatles and GTZAN, where it achieves the sec-
ond highest score. These are the (second) highest MIREX
scores reported ever.

3. 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`.

4. REFERENCES

[1] Sebastian Böck, Filip Korzeniowski, Jan Schlüter, Flo-
    rian 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.
    Joint beat and downbeat tracking with recurrent neural
    networks. In *Proceedings of the 17th International So-
    ciety for Music Information Retrieval Conference (IS-
    MIR)*, New York, NY, USA, 8 2016.