

MIREX 2016 submission SB3

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ABSTRACT

This extended abstract describes the onset detection submission: *CNNOnsetDetector*.

1. DESCRIPTION

For technical details of the algorithm, please refer to [3]. This implementation still uses the network trained for [2].

2. RESULTS

The algorithm achieves the highest *F-measure* value. This is also the highest MIREX score 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, Florian Krebs, and Gerhard Widmer. *madmom: a new Python Audio and Music Signal Processing Library*. arXiv:1605.07008, 2016.
- [2] Jan Schlüter and Sebastian Böck. Musical onset detection with convolutional neural networks. In *Proceedings of the 6th International Workshop on Machine Learning and Music*, Prague, Czech Republic, 9 2013.
- [3] Jan Schlüter and Sebastian Böck. Improved musical onset detection with convolutional neural networks. In *Proceedings of the 39th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Florence, Italy, 5 2014.