

MIREX ONSET DETECTION TASK

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ABSTRACT

This extended abstract describes the MIREX submission `OnsetDetector.2012` and its online variant `OnsetDetectorLL` for the onset detection task.

[3] F. Eyben, S. Böck, B. Schuller, and A. Graves. Universal onset detection with bidirectional long short-term memory neural networks. In *Proceedings of the 11th International Society for Music Information Retrieval Conference (ISMIR 2010)*, pages 589–594, 2010.

1. INTRODUCTION

For the technical details of the systems, please see [3] and [1].

2. RESULTS

Both `OnsetDetector.2012` and `OnsetDetectorLL` mark the current state-of-the-art in onset detection in offline and online settings.

Algorithm	F-measure	Precision	Recall
<code>OnsetDetector.2012</code>	0.8538	0.8518	0.8835
<code>OnsetDetectorLL</code> *	0.8309	0.8450	0.8484
<code>LogFiltSpecFlux</code> [2].	0.8224	0.8172	0.8572
<code>LogFiltSpecFlux</code> [2]. *	0.8180	0.8167	0.8477
Röbel (2011)	0.8065	0.7831	0.8788
Zhou (2007)	0.8080	0.8570	0.7820

Table 1. MIREX onset detection results. Asterisks mark online results. Years other than 2012 are indicated accordingly.

3. REFERENCES

- [1] S. Böck, A. Arzt, F. Krebs, and M. Schedl. Online real-time onset detection with recurrent neural networks. In *Proceedings of the 15th International Conference on Digital Audio Effects (DAFx-12)*, York, UK, September 2012.
- [2] S. Böck, F. Krebs, and M. Schedl. Evaluating the online capabilities of onset detection methods. In *Proceedings of the 13th International Society for Music Information Retrieval Conference (ISMIR 2012)*, Porto, Portugal, October 2012.

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