

# Development of a Rhythm Similarity Model for Electronic Dance Music

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## Research Question

### EDM and rhythm:

- Consisting of ‘four on the floor’ and ‘breakbeat-driven’ genres
- Built on the concept of a ‘loop’, a repeating (often percussive) pattern
- Exhibiting rhythm polyphony and subtle variations (cf. Fig.1)

**AIM:** Development of a model for inter-segment rhythm similarity.

### Dataset:

- 60 artists
- 1236 audio tracks
- 21676 segments

(Rocha et al. 2013)


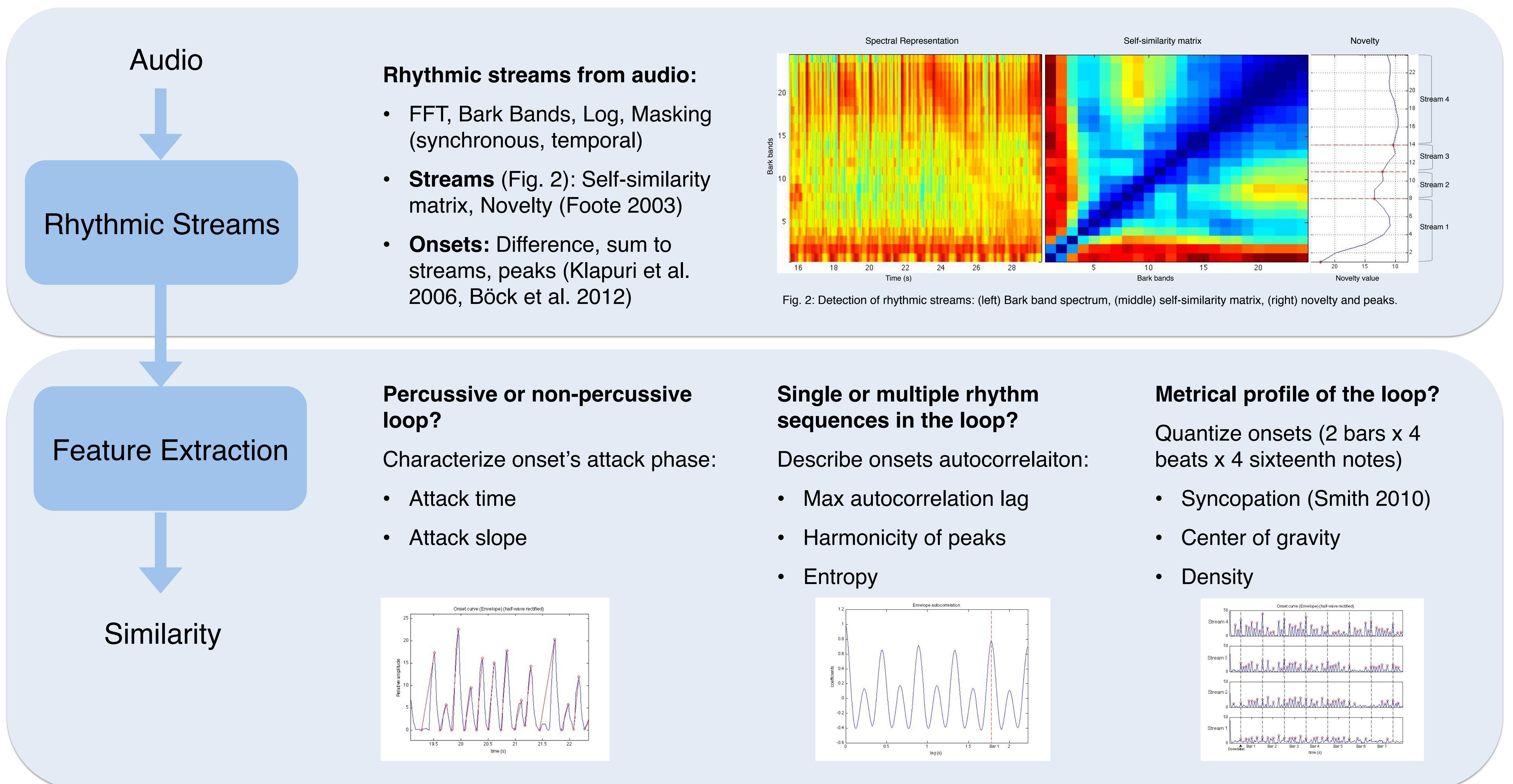
Rhythm in Musical Notation	Most Common Instrumental Associations
	Bass drum
	Snare drum; handclaps
	Hi-hat (open or closed); also snare drum or synth “stabs”
	Hi-hat (closed)

Fig. 1: Example of a common (symmetrical) rhythm in EDM (Butler 2006, p.82).

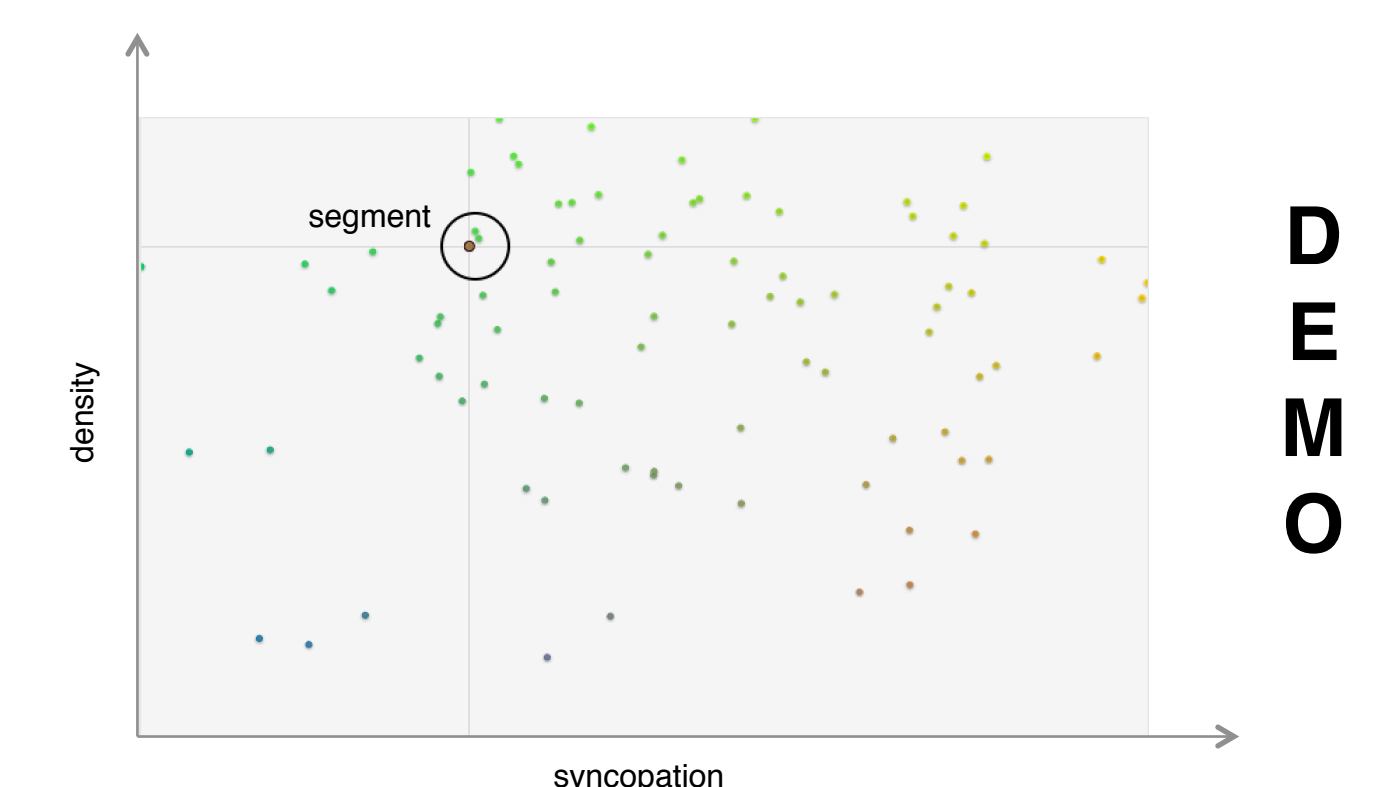
## Methodology



## Preliminary Evaluation

Subjective evaluation of inter-segment similarity via different sets of features (cf. Demo):

- Metrical profile feature vector improves perceptual similarity (finding also supported in (Smith 2010))
- Indication of improvement by focusing on relations of rhythmic elements amongst the different streams
- Further investigation and evaluation of the model in future work



## Conclusion

- A model for investigating rhythm similarity in EDM
- Based on music characteristics and perceptual attributes
- Inter-segment similarity via different sets of features (Demo)
- **Future work:** evaluation with listeners’ annotations

## References

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