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Assignment 3: Bello, J. P., et al. (2005). “A tutorial on onset detection in music signals.”

1. What is the difference between an attack and an onset?

The attack is the period of the signal where the amplitude is increasing. The onset is the beginning of the transient.

2. Why is preprocessing typically done to the signal?

Preprocessing allows the user to more easily extract useful information from the signal by either highlighting the components they wish to study or discarding information that is not needed for their purpose.

3. What is the purpose of reduction?

The purpose of reduction is to transform the signal into a detection function whose outputs can be searched for markers that indicate transients (aka peak-picking).

4. What is the role of peak picking?

Peak picking is the process of identifying the peaks in the output of the detection function that you believe represent transients and separating them from the peaks that do not represent transients.