

Rhythm Tree Rewriting

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In traditional western music notation, the durations of notes are expressed hierarchically by recursive subdivisions. This led naturally to a tree representation of melodies widespread in systems for assistance to music authoring. We will see how term rewriting techniques can be applied to computer music problems, in particular to the problem of rhythm quantization: the transcription of a sequence of dates (real time values) into a music score. Besides the question of rhythm representation, an interesting problem in this context is the design and concise description of large rewrite rule sets and decision problems for these descriptions.