

Dedication

***It don't mean a thing, if it ain't got that swing.***

***-- Duke Ellington and Irving Mills***

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Rhythm Analyzer  
A Technical Look at  
Swing Rhythm  
in Music

by

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ABSTRACT

We investigate the nature of swing rhythm in music by using computer analysis techniques. Swing is not a genre of music, but rather a style of performance. The same musical piece (data) can be played in swing or straight time. The musical notes and structure would be identical in both performances, but the notes' temporal patterns have slight, significant differences between straight and swing performances. We demonstrate a technical approach for analyzing these differences, and show examples of several styles of swing, including American Swing, Brazilian Samba, and Jamaican Reggae. Compared to American swing, Brazilian swing, or *swingee* as Brazilians call it, shows significantly more complex patterns of timing variations.

Unlike much of the work in the computer industry, computer music rarely strays far from the human experience. As such, it is a useful bridge between the purely technical and the purely human, especially emotional response. In particular, we enjoy swing music because its basic nature is an expression of fun and enjoyment of life.

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