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The Physics of the Blues

J. MURRAY GIBSON, Argonne National Laboratory

In looking at the commonalities between music and science, one sees that the musician's palette is based on the principles of physics. The pitch of a musical note is determined by the frequency of the sound wave. The scales that musicians use to create and play music can be viewed as a set of rules. What makes music interesting is how musicians develop those rules and create ambiguity with them. I will discuss the evolution of western musical scales in this context. As a particular example, "Blue" notes are very harmonic notes that are missing from the equal temperament scale. The techniques of piano blues and jazz represent the melding of African and Western music into something totally new and exciting. Live keyboard demonstrations will be used. Beyond any redeeming entertainment value the talk will emphasize the serious connections between science and art in music. Nevertheless tips will be accepted.