APS CUWiP at Argonne



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How Musicians Can Utilize the Guitar's Acoustic Properties

Sunday, January 22, 2023 8:30 AM (12 minutes)

Guitars are extremely versatile instruments due to the myriad of ways in which the player can alter the timbre. Specific adjustments are made to the guitar that correspond to stylistic distinctions between genres of music. This study explores how the timbre of the guitar is affected by alterations in the string type and gauge, the excitement location, pick versus pluck excitements, and the placement of the capo on an acoustic guitar. The main goal is to investigate how each of these factors play a role in certain genres of music where guitars are one of the main instruments. Measurements were taken at the LU acoustics lab and the anechoic chamber at Northwestern, and from the data we can determine how our results can be utilized by musicians. This talk will present how a theoretical understanding of the previously mentioned changes can justify and direct a guitarist's artistic decisions in Flamenco, Irish Traditional, and country/folk music. Understanding the connection between the technical and artistic aspects of the guitar can guide a musician in creating the effects appropriate for each genre.

Presenter: MOORE, Jessica (Loyola University Chicago) **Session Classification:** Student Research Talks I