Department of Physics and Materials Science



SEMINAR

Acoustics Isn't Just Music!

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Abstract: While musical acoustics is an important and fascinating part of the study of sound and vibration, it is far from the whole story. In this talk, we will survey other active areas of acoustics research that the audience is likely not aware of. We cannot hope to cover every facet of the field, but we will present several examples that may provide a better appreciation of how deep and varied the study of acoustics is. In particular, we will discuss how commercial flights may soon take half the time, how to use plants to spy on someone, magnifying videos to detect deepfakes, creating volumetric displays with sound, conducting noninvasive surgery with ultrasound, and more.

Bio: Luke Wade received Bachelors degrees in Physics and Mathematics at Christian Brothers University in 2018. He went on to pursue his Masters of Science in Acoustics at Penn State where, working under a NASA Graduate Fellowship, he studied the effects of caustic focusing in sonic boom propagation. This resulted in an improvement of the existing model for sonic boom focusing in lossy, relaxing, convective media. Upon graduating in 2022, Luke leveraged (begged) some connections at CBU to put him in contact with the University of Memphis Department of Physics and Materials Science. He now serves as an Assistant Professor in the department.

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Friday Mar. 3rd, 3 - 4 PM Manning Hall 201

