



Department of Physics and Astronomy
SPRING 2024 Colloquium Series

“Measuring the Thermal Expansion of Polylactic Acid and Low Temperatures”

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Polylactic Acid (PLA) stands as a widely used polymer that is popularly useful in 3D printing due to its cost-effectiveness and eco-friendliness. Through 3D printing, PLA can be utilized in labs and workshops to rapidly manufacture parts for experiments and prototyping. To assess its suitability for low-temperature applications, we aim to determine how its volume changes in response to changes in temperature. This physical mechanism is known as thermal expansion. Despite its extensive use, no published research exists on the thermal expansion of PLA at low temperatures, and prior investigations into the subject have yielded inconclusive results. To address this knowledge gap, we have developed a new method for measuring thermal expansion using a parallel plate capacitor.

Thursday, May 2, 2024
4:00 - 5:20PM

MND1015

Open & Free to all students, faculty and public