"Semi-Automated Analysis of Stress vs. Strain Data: A Facilitated Approach"

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This project aims to develop MATLAB code to streamline the analysis of stress versus strain data collected using the Physics department's force-extension rig. While many applications are possible, our focus is on characterizing microplastics, specifically fishing line. Two types of experiments were conducted: Stress versus Strain, and Stress/Strain Step. The code allows for user input and interaction, subsequently providing data analysis and graphs. Various moduli are calculated, displayed to the user, and outputted to the terminal. The ultimate goal is to create a versatile piece of software that can be used for analyzing a wide range of materials with minimal customization required.

Thursday, May 2, 2024
4:00 - 5:20PM
MND1015
Open & Free to all students, faculty and public