

3:00-4:00pm, Friday, November 8, 2024
1206 Patrick F. Taylor Hall

Cavitation: at interfaces, with bacterial colonies, and in our bodies

by Dr. Tal Cohen

Cavitation has long been recognized as a crucial predictor, or precursor, to the ultimate failure of various materials, ranging from ductile metals to soft and biological materials. Traditionally, cavitation in solids is defined as an unstable expansion of a void or a defect within a material. The critical applied load needed to trigger this instability -- the critical pressure -- is a length-scale independent material property and has been predicted by numerous theoretical studies for a breadth of constitutive models. In this talk, I will discuss our recent advancements in the study and application of cavitation in solids