PUSHING THE NEEDLE THROUGH THE HAYSTACK, ***Kevin Stokely****, Scott V. Franklin*, Physics*

Granular media are not only interesting, but are becoming increasingly important in industries such as the pharmaceutical and oil industries. Unfortunately, very little is known of these materials, and nearly all research that has been done concerning them has been limited to spherically symmetric particles. We are looking at collections of long thin particles, and hope to explore a phase transition between free flowing and jammed states. Previous work compared experimentally formed and simulated piles within the context of a theoretical model. The current experiment measures the force necessary to drag a small probe through a horizontal, two-dimensional collection of particles, and uses video software to analyze the resulting piles. Preliminary results from this experiment will be shown, as well as previous results, and plans for future work here at RIT.