



PHYSICS COLLOQUIUM

Impact!

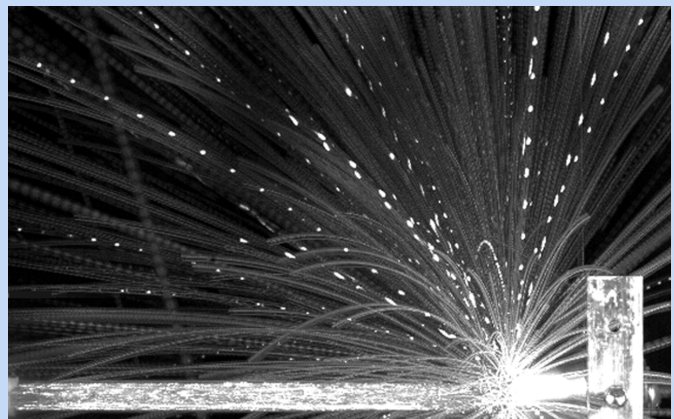


Sid Nagel

University of Chicago

Host: Coppersmith

Abstract: When a liquid drop or a fluid stream hits a solid target it catastrophically deforms its shape in ways that can strongly violate our intuition. I will discuss two examples that raise issues about how a liquid interacts with itself and with its surroundings upon impact. The first experiment concerns an ordinary drop hitting a smooth dry surface. In this case the drop can create a splash in which a corona forms and breaks up into many small droplets. The second experiment deals with a granular stream hitting a target. In this situation, the material acts like a liquid with zero surface tension and has implications for how scattering takes place even at the submicroscopic level in studies of the quark-gluon plasma. A comparison of the granular jet with the heavy ion collisions raises questions about what it means to be a liquid.



2241 Chamberlin Hall • Friday, October 24, 2008 • 4:00 P.M.
cookies & coffee served at 3:30 p.m.