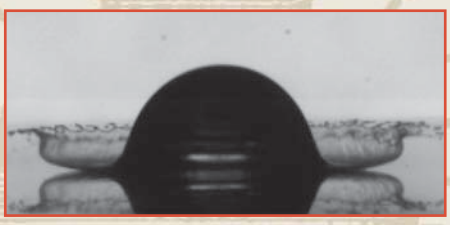
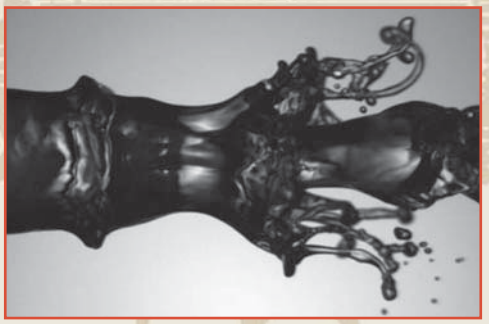
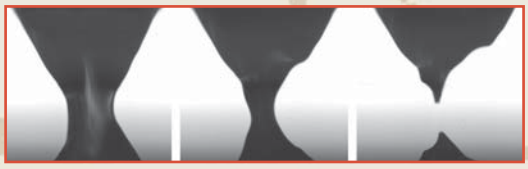


Photos from top:
1. Splash of a liquid drop hitting glass at 4 m/s (Xu, Zhang & Nagel, *Phys. Rev. Lett.* 94 184505 2005).
2. Jet formation after collapse of an air cavity (Zeff et al. *Nature* 2000).
3. Breakup of a liquid jet (Marmottant & Villermaux, *J. Fluid Mech.* 2004).
4. A ribbon of air tearing from two sides (Photo courtesy of N. Keim and S. R. Nagel, University of Chicago 2006).
5. Impact of liquid drop at 0.4 m/s (Richard, Clanet and Quere, *Nature*, 417, 811 2002).
Background: Sketch of splash pattern made by a milk drop hitting soot-covered glass (Worthington, Proc. Roy. Soc. London 25 261 1876).

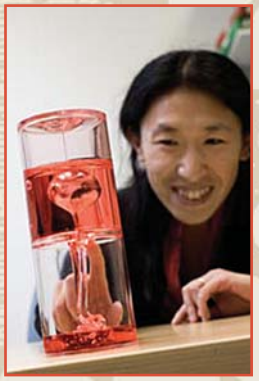




Capturing fluid motion: The art and science of freezing time

Wednesday, July 5, 2006
7 to 8 p.m.
Duane Physics Building
Room G1B20
University of Colorado

We have all noticed that water drips from a leaky faucet, but honey forms long, thin threads when being pulled from its container. Also we know that a tennis ball bounces when it hits the ground, but rain drops splash when they strike the ground. The physics underlying fluid motion in such common situations has long remained elusive. However, recent improvements and the increased availability of high-speed scientific imaging techniques have revealed previously hidden patterns in these liquid motions. The implications of these observations are often strikingly counter-intuitive. This lecture will describe some recently discovered surprises and mention their possible resolutions.



Professor Wendy W. Zhang

» Wendy W. Zhang is a theoretical physicist at the University of Chicago. She has been long been fascinated by the physics of shape changes in every-day life. Some examples are the break-up of a water drop from a leaky faucet or the division of a mother cell into two daughter cells. Her website is http://jfi.uchicago.edu/~wzhang.

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