



Mark
Croft

Jon
Mayes

Ben
Shappee

Orin
Levi

Georgia
Simon

Dave
Maiullo



2008 Rutgers Faraday Children's Lecture Crew

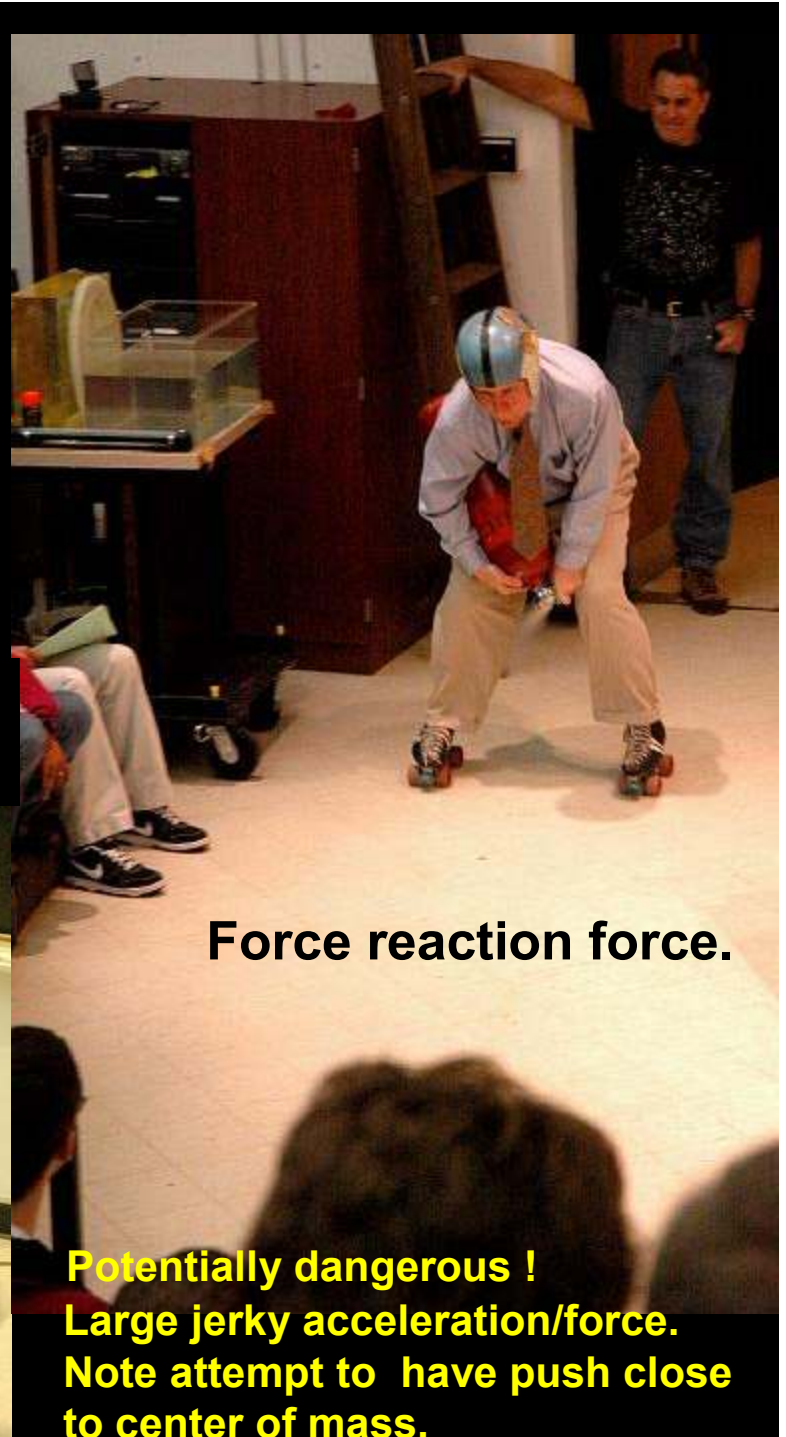
All pictures courtesy
of Ivan Kovalev



**Rotating Chair
Mass close to axis
– faster rotation.**



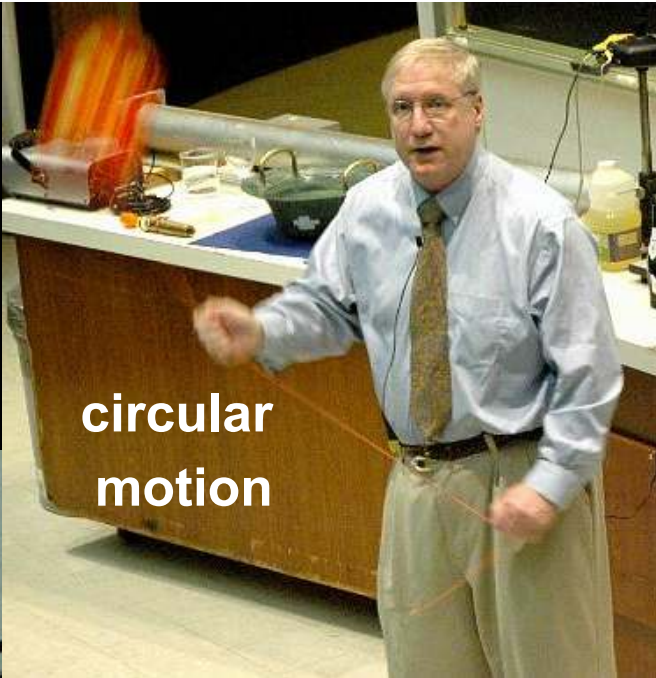
**Angular momentum
conservation.**



Force reaction force.

**Potentially dangerous !
Large jerky acceleration/force.
Note attempt to have push close
to center of mass.**

Centripetal force

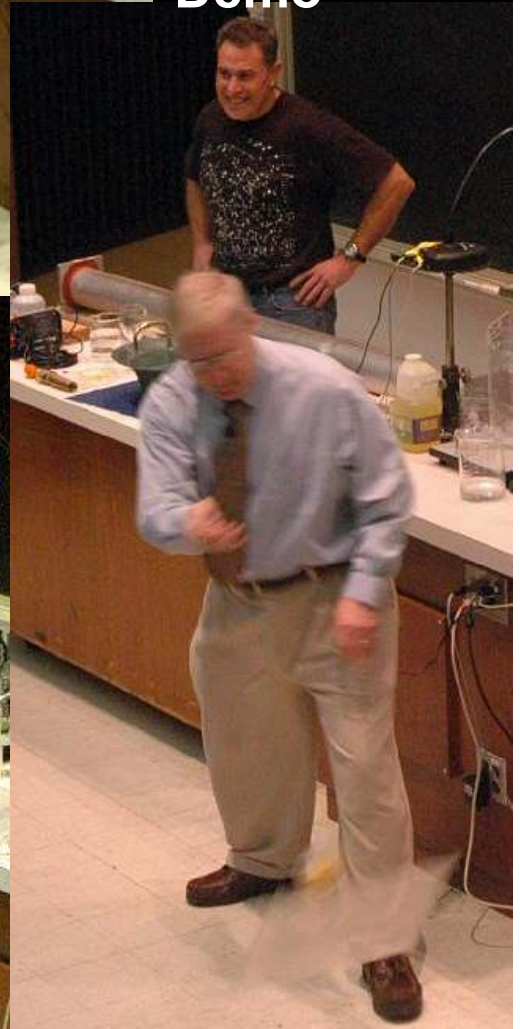
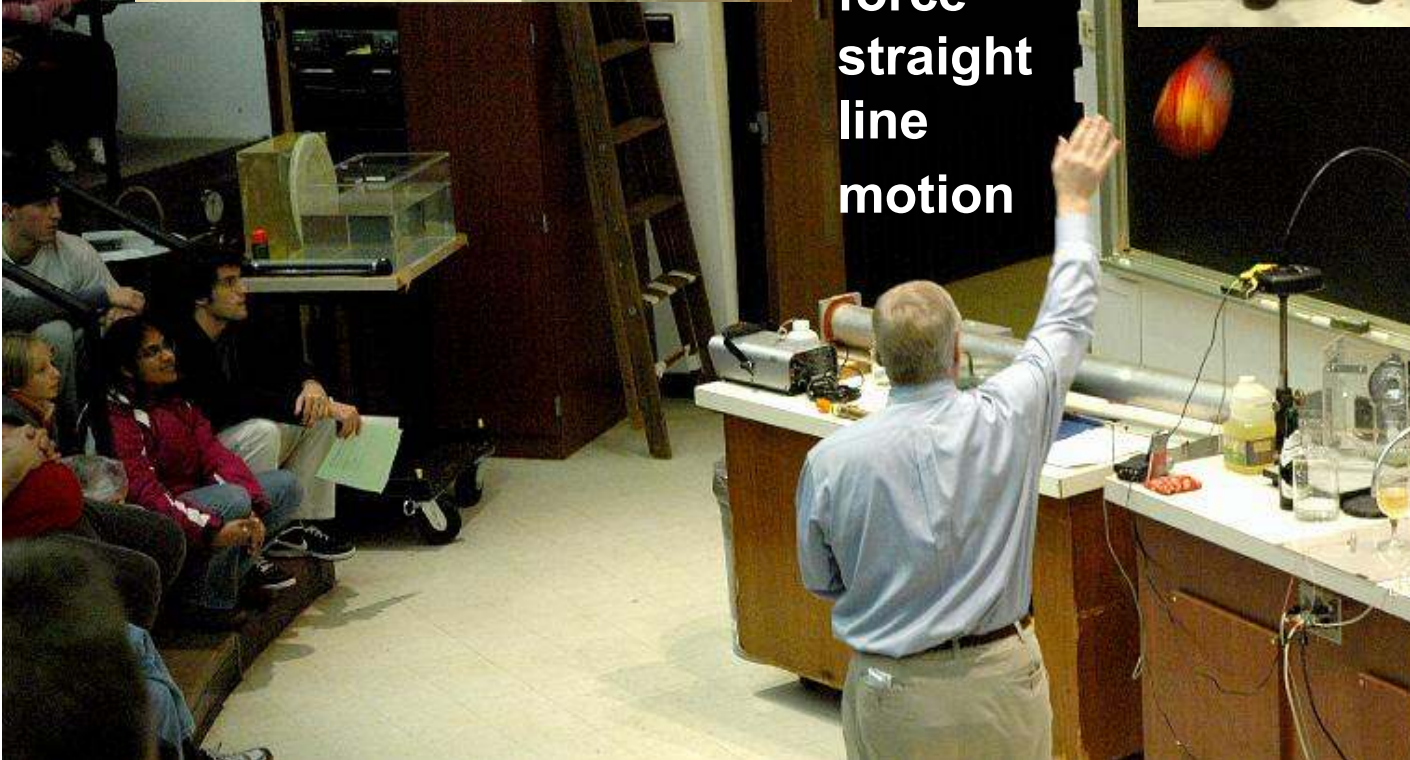


circular motion



Waiter's Tray Demo

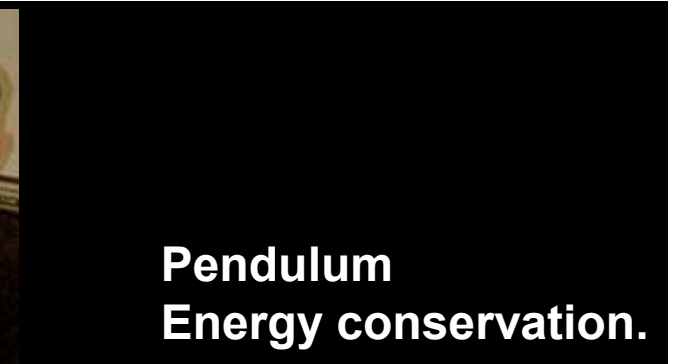
Remove force
straight line motion





Liquid nitrogen cannon.

**Liquid to gas – large volume expansion
- pressure buildup blows cork.**

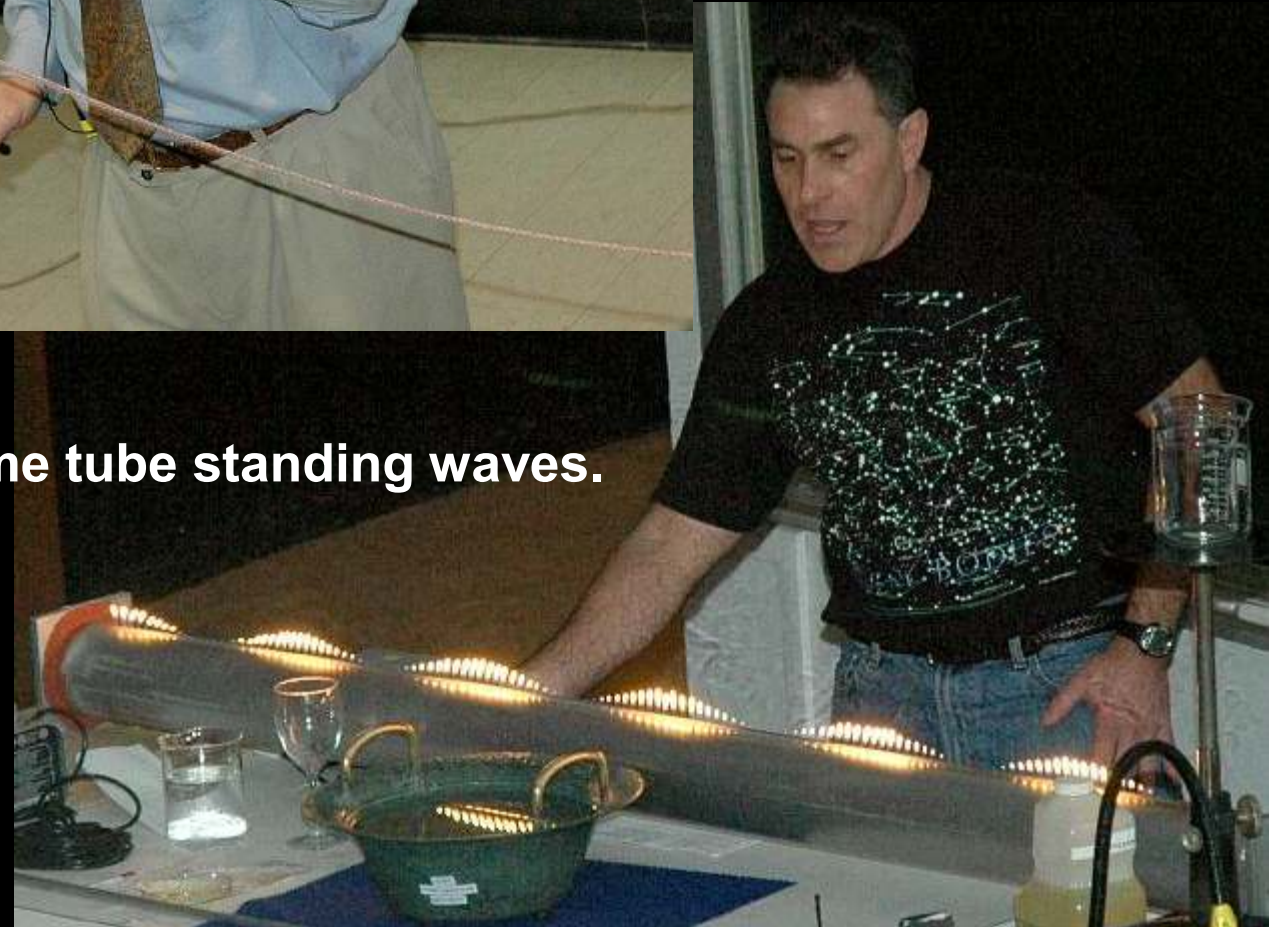


**Pendulum
Energy conservation.**





Standing waves on rope.



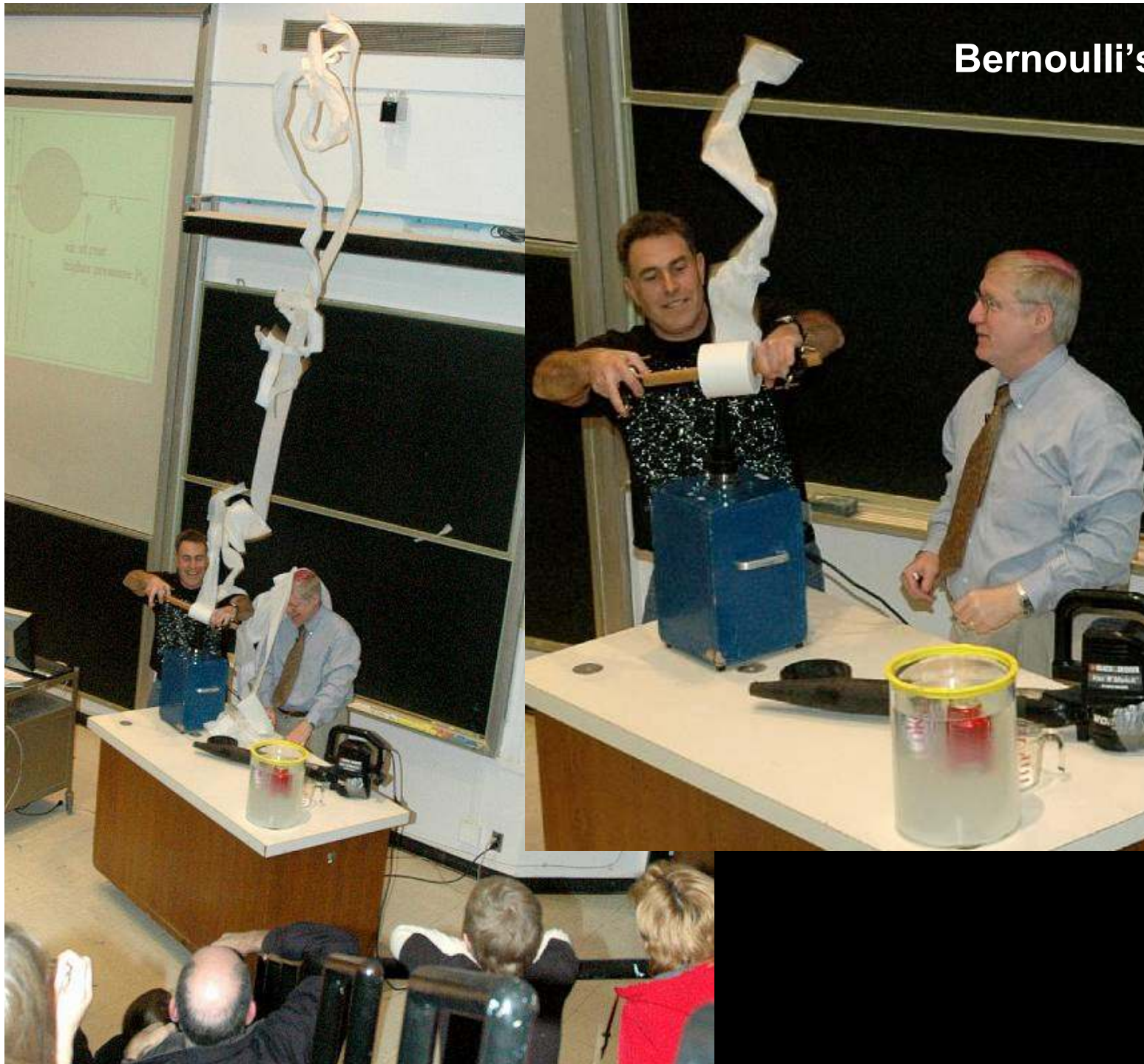
Flame tube standing waves.

Hydrogen & Helium balloons.

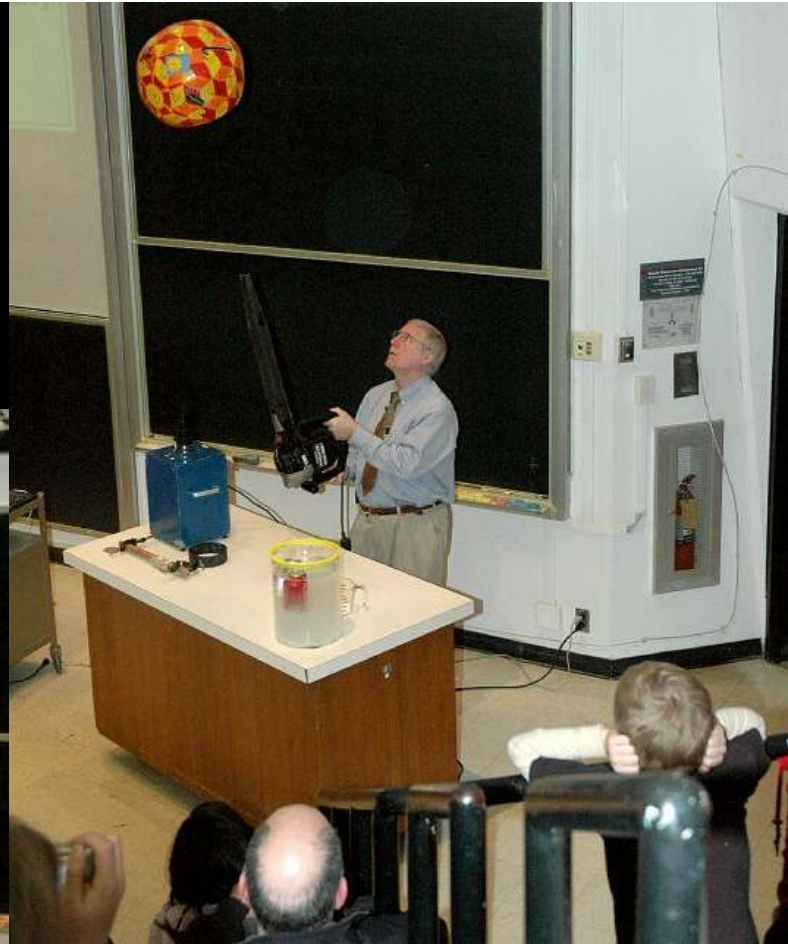
Density-buoyancy.



Bernoulli's Principal



Bernoulli's Principal



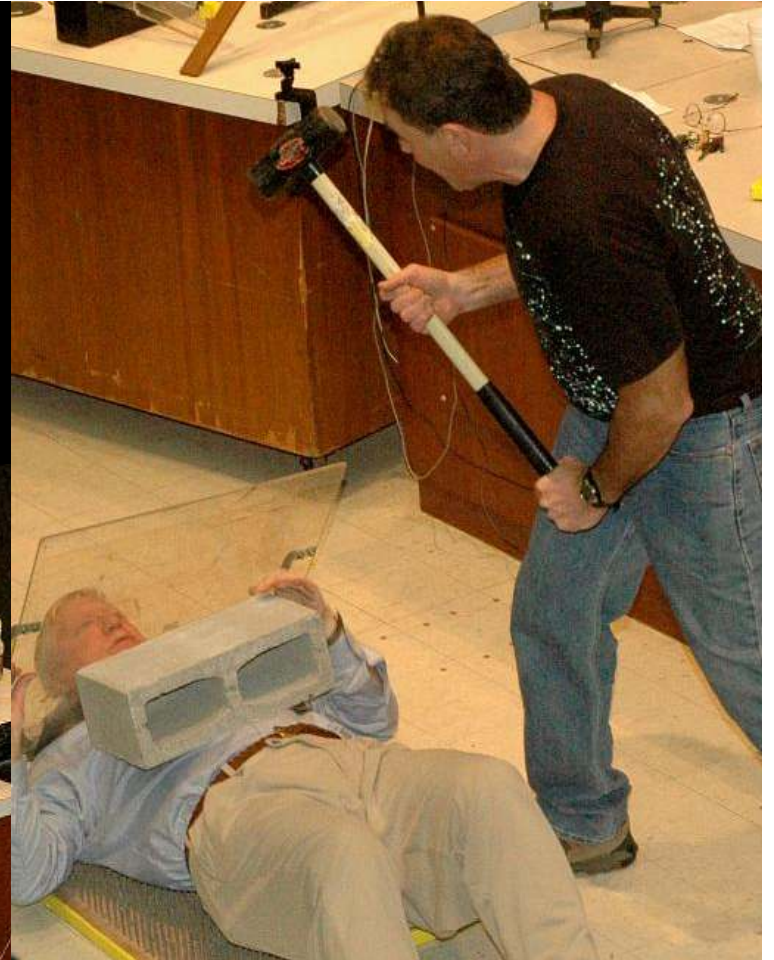


Bed of nails.



**Prof. (or baloney) sandwich
Force per nail demo.**

Force per nail.
Why Prof. doesn't pop.



Dave's favorite
demo?

