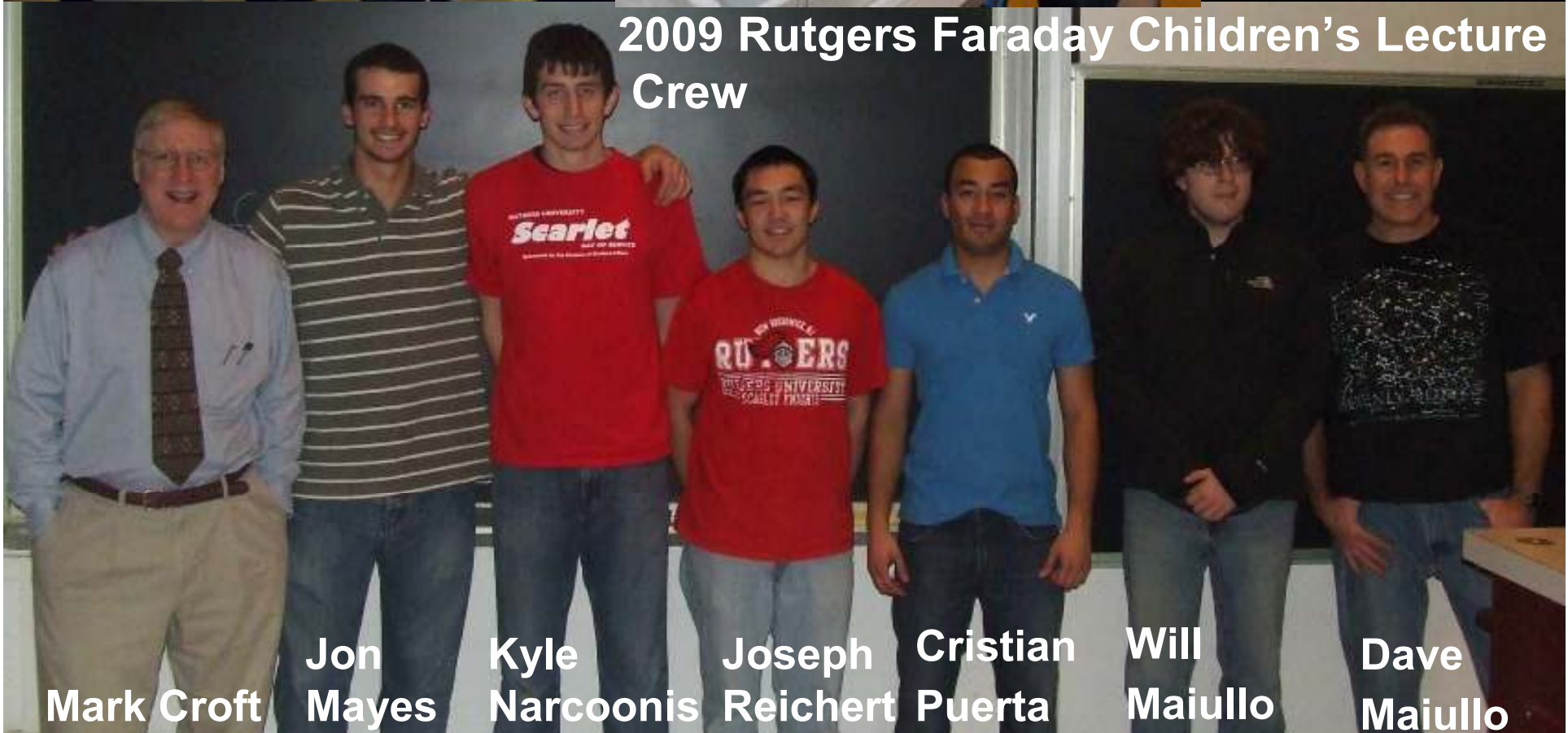




**Before
lecture
demos.**

**Pictures
courtesy of
Nick Romanenko**



2009 Rutgers Faraday Children's Lecture Crew

Mark Croft

**Jon
Mayes**

**Kyle
Narcoonis**

**Joseph
Reichert**

**Cristian
Puerta**

**Will
Maiullo**

**Dave
Maiullo**



Welcome, introduction, Prof. Horton dedication.



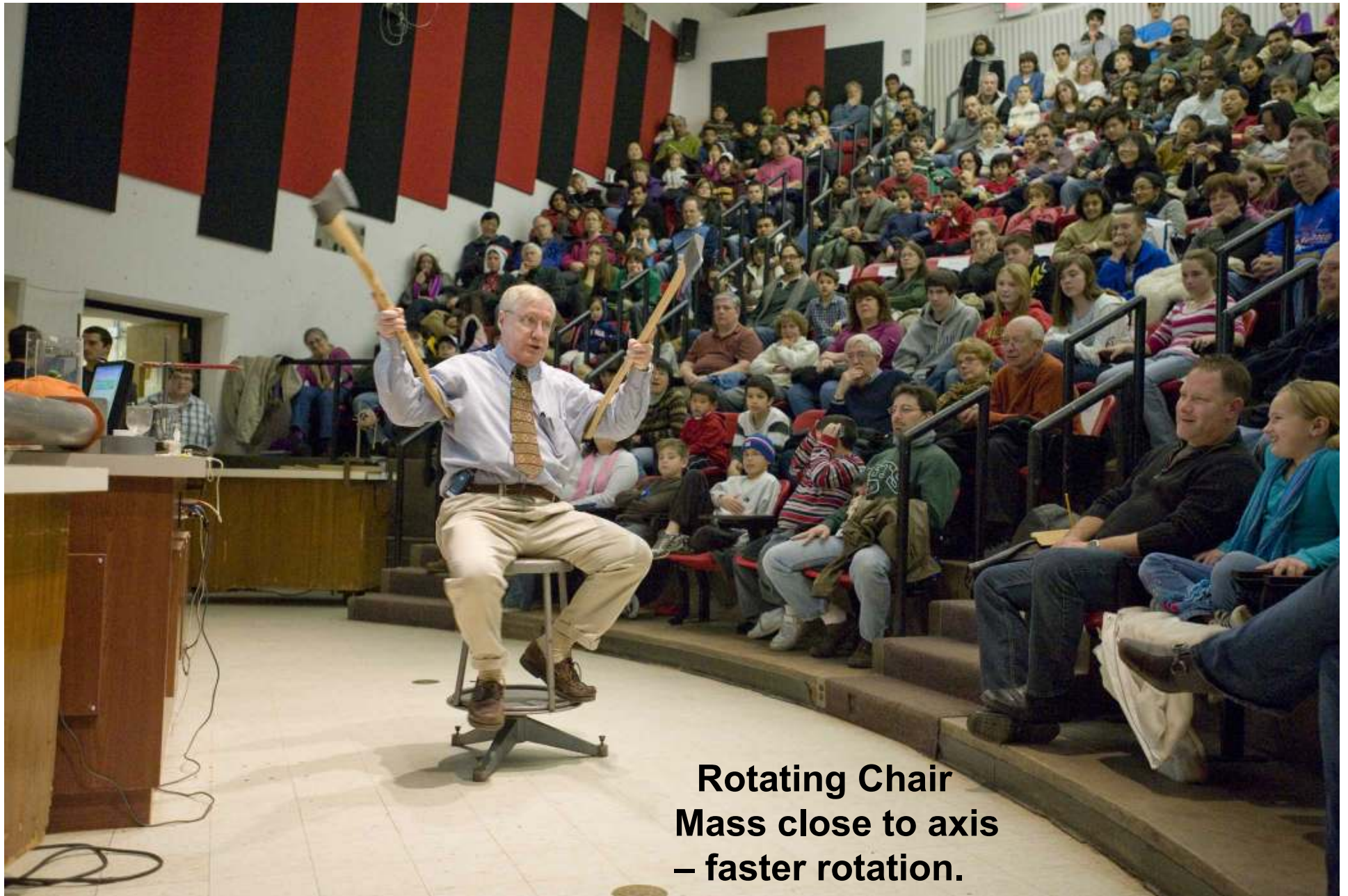
Force reaction force.

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



Rotating Chair
Mass close to axis
– faster rotation.

Angular momentum
conservation.



Rotating Chair
Mass close to axis
– faster rotation.

Angular momentum
conservation.

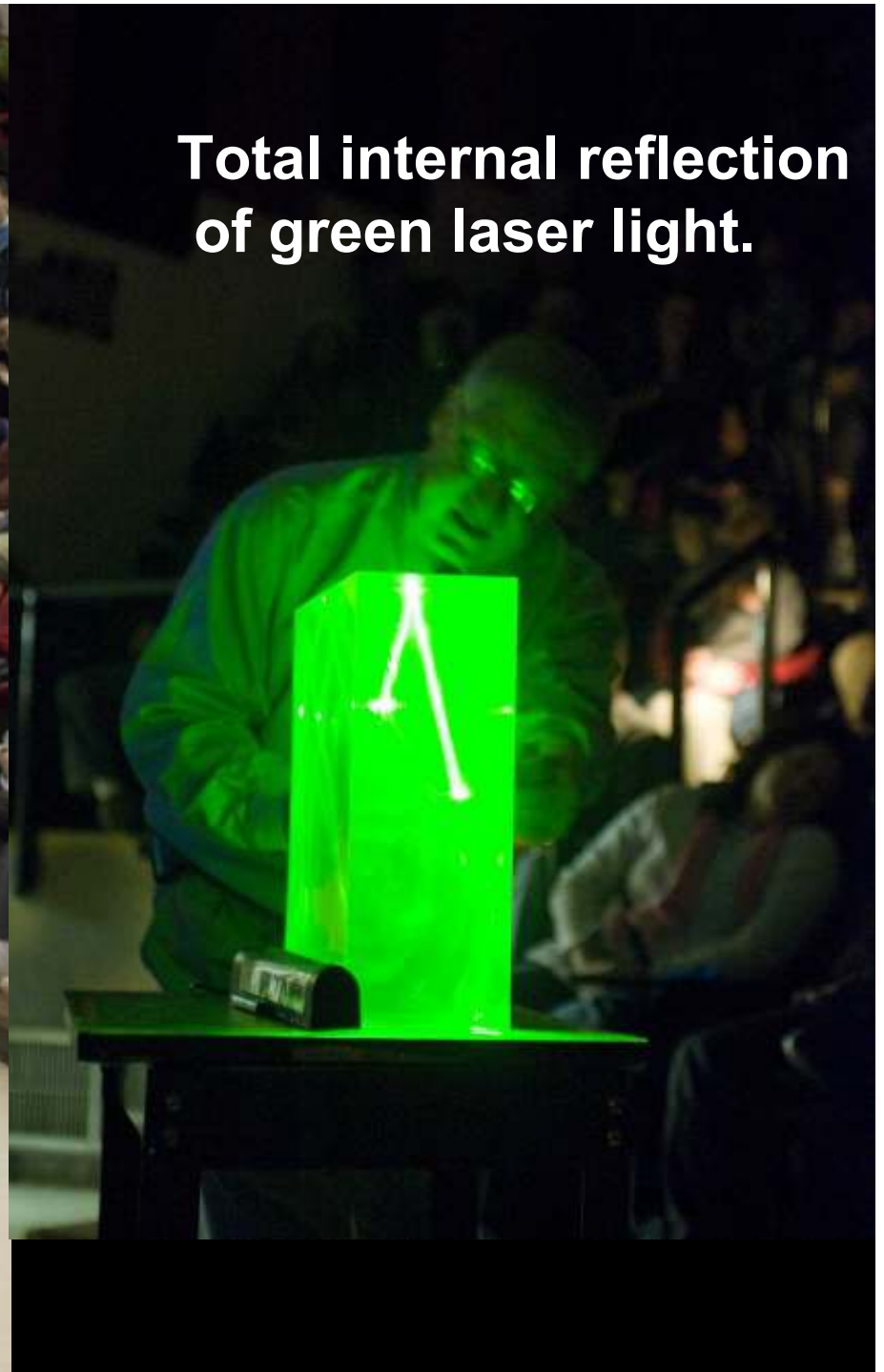
Propagating
vortex loop.

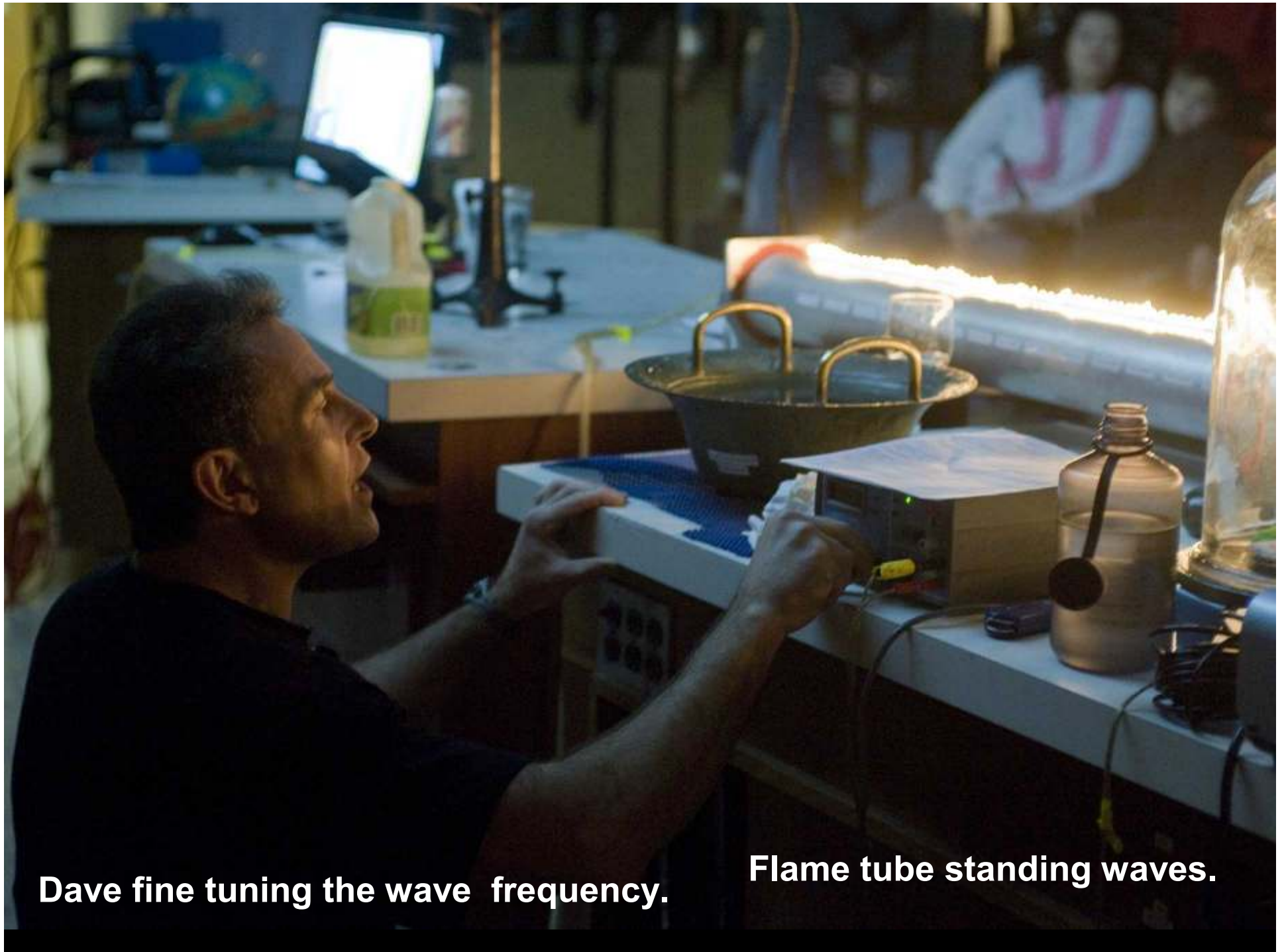


Waiter's Tray Demo
Centripetal force



Total internal reflection
of green laser light.





Dave fine tuning the wave frequency.

Flame tube standing waves.

Bernoulli's Principal



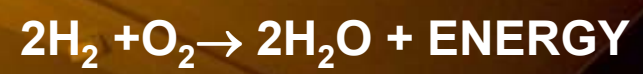
Bernoulli's Principal



Bernoulli's Principal

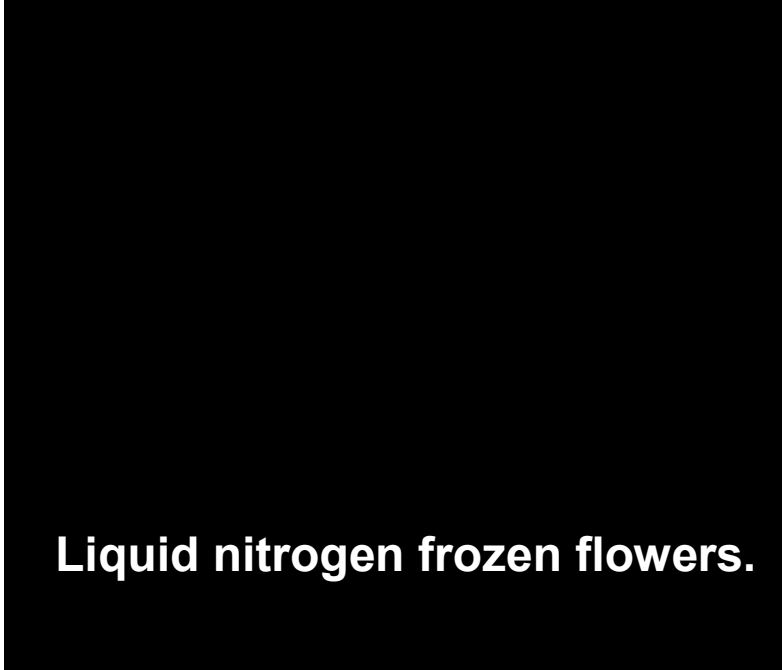


Hydrogen balloon.





Ring flinger.



Liquid nitrogen frozen flowers.





Bed of nails.

Force per nail demo.

Prof. (or baloney) sandwich.