

NYU Physics I

- Exam 4...?
- QS.
- ?

2018-11-01

- hydrostatics
- pressure.
- Bernoulli eqn.

$$\omega = \sqrt{\frac{AE}{LM}} \quad \sqrt{\frac{LE}{M}} \quad \sqrt{\frac{EJA}{M}} \dots$$

H.L: stress \propto strain

~~$$\frac{\Delta L}{L} = \frac{F}{A}$$~~

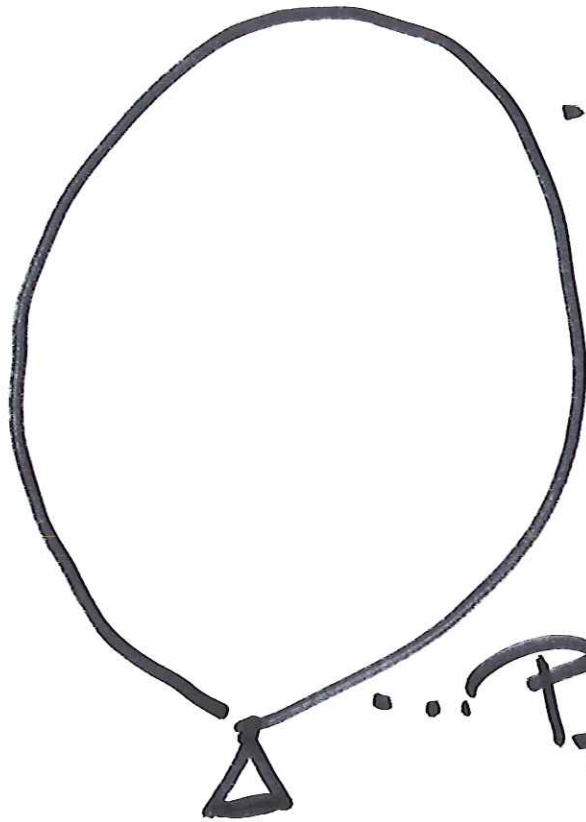
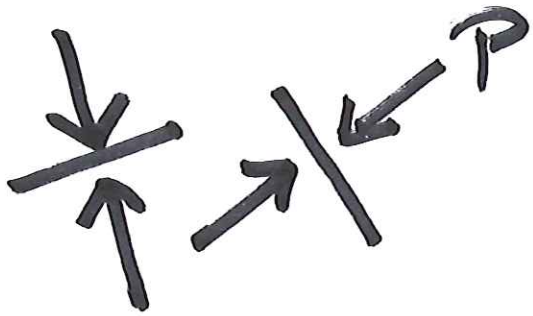
$$F = kx$$

$$\frac{F}{A} = E \frac{\Delta L}{L}$$

$$F = \frac{AE}{L} \Delta L$$

Stress Strain

Pressure is isotropic.

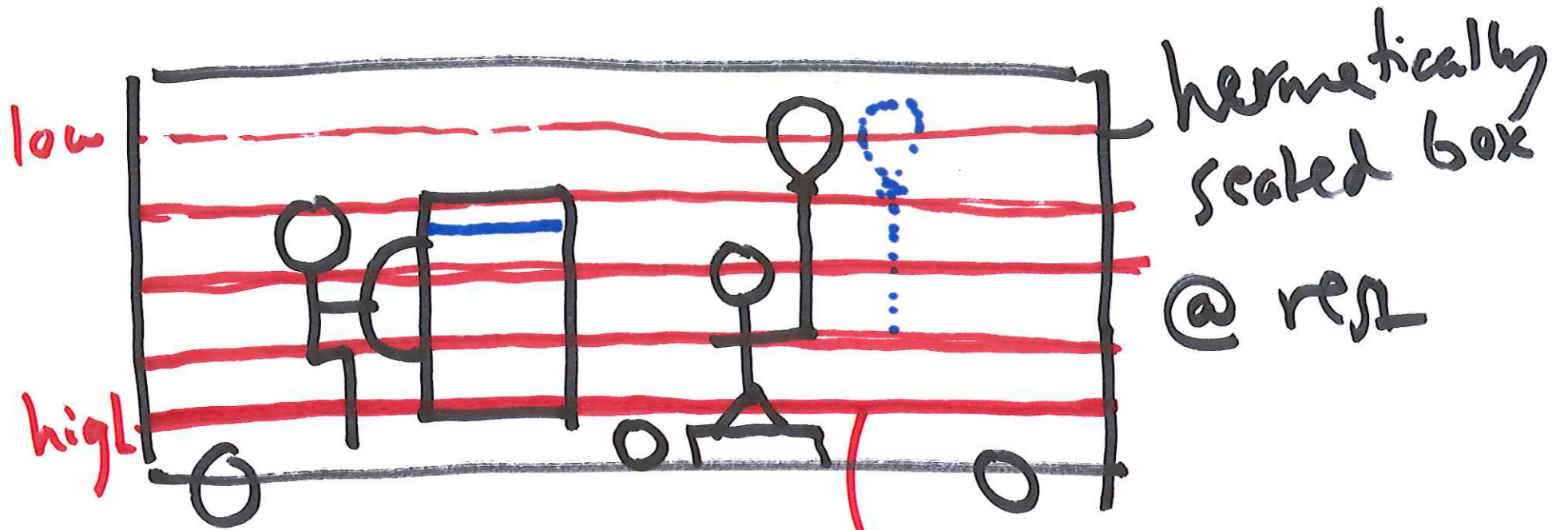


doesn't depend on angles

$$P_2 > P_1$$

(but inhomogeneous)

does depend on position.



hermetically
sealed box
@ rest

argument:
static block o' air

iso-pressure
surfaces

A diagram illustrating a static block of air. On the left, a vertical double-headed arrow is labeled "h", representing the height of the block. The block is represented by a central vertical line with horizontal dashed lines extending from it. At the top, a downward arrow is labeled "P₁". At the bottom, an upward arrow is labeled "P₂". To the right of the block, the equation $P_2 - P_1 = \rho g h_2$ is written.

