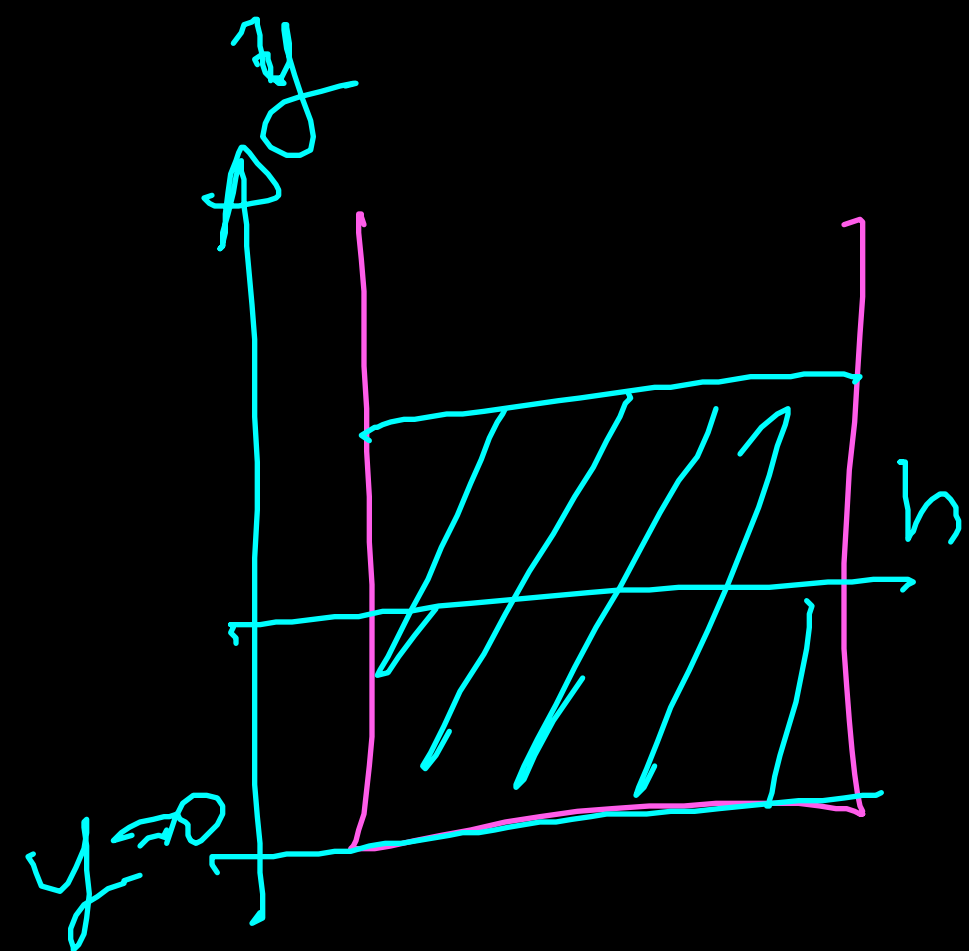


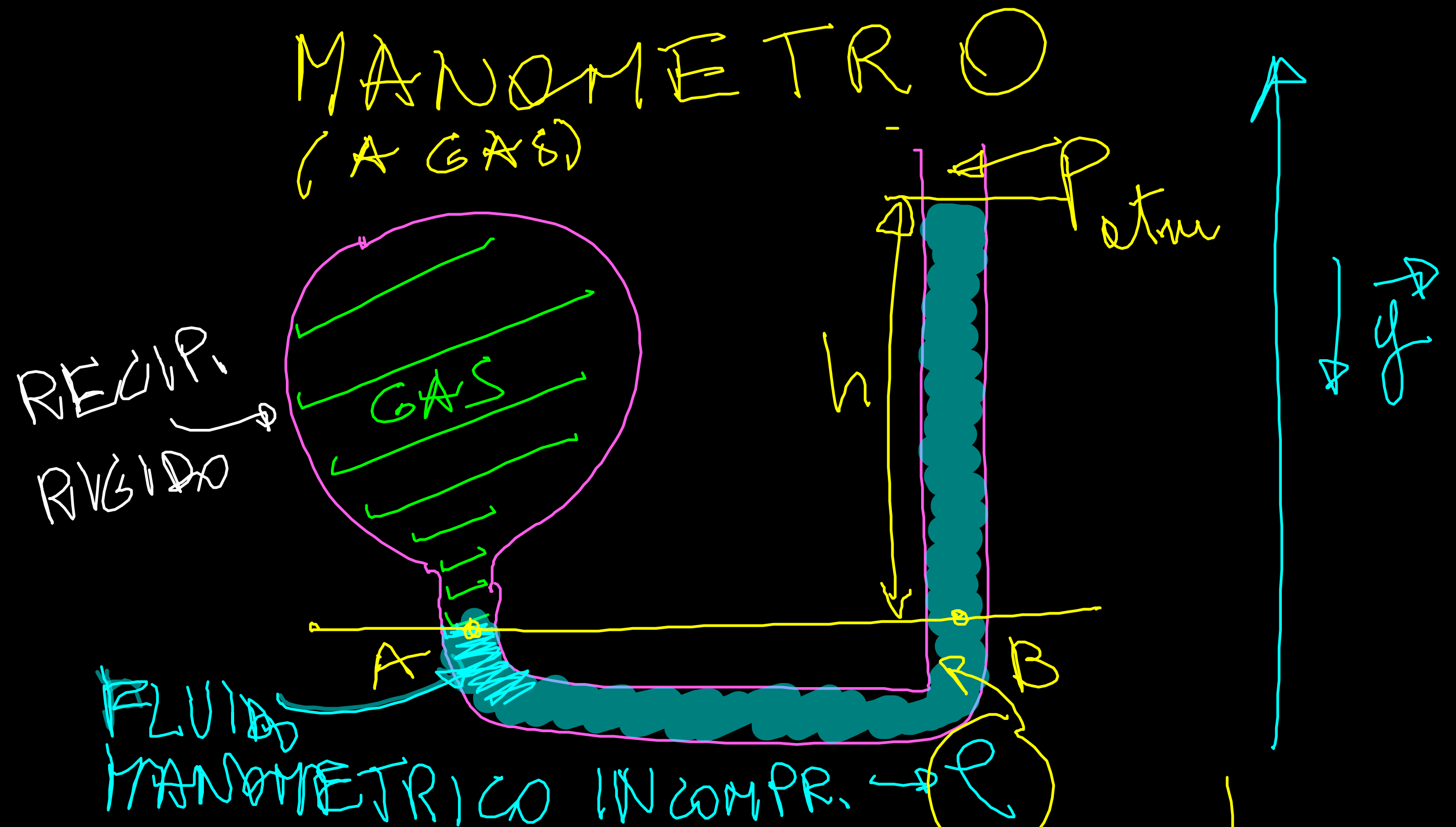
# ELEMENTI DI FLUIDOSTATICA



VARIAZIONE DELLA PRESS. CON L'ALTEZZA

$$dp = -\rho g dy$$

Se incomp.  $\rho = \text{cost}$



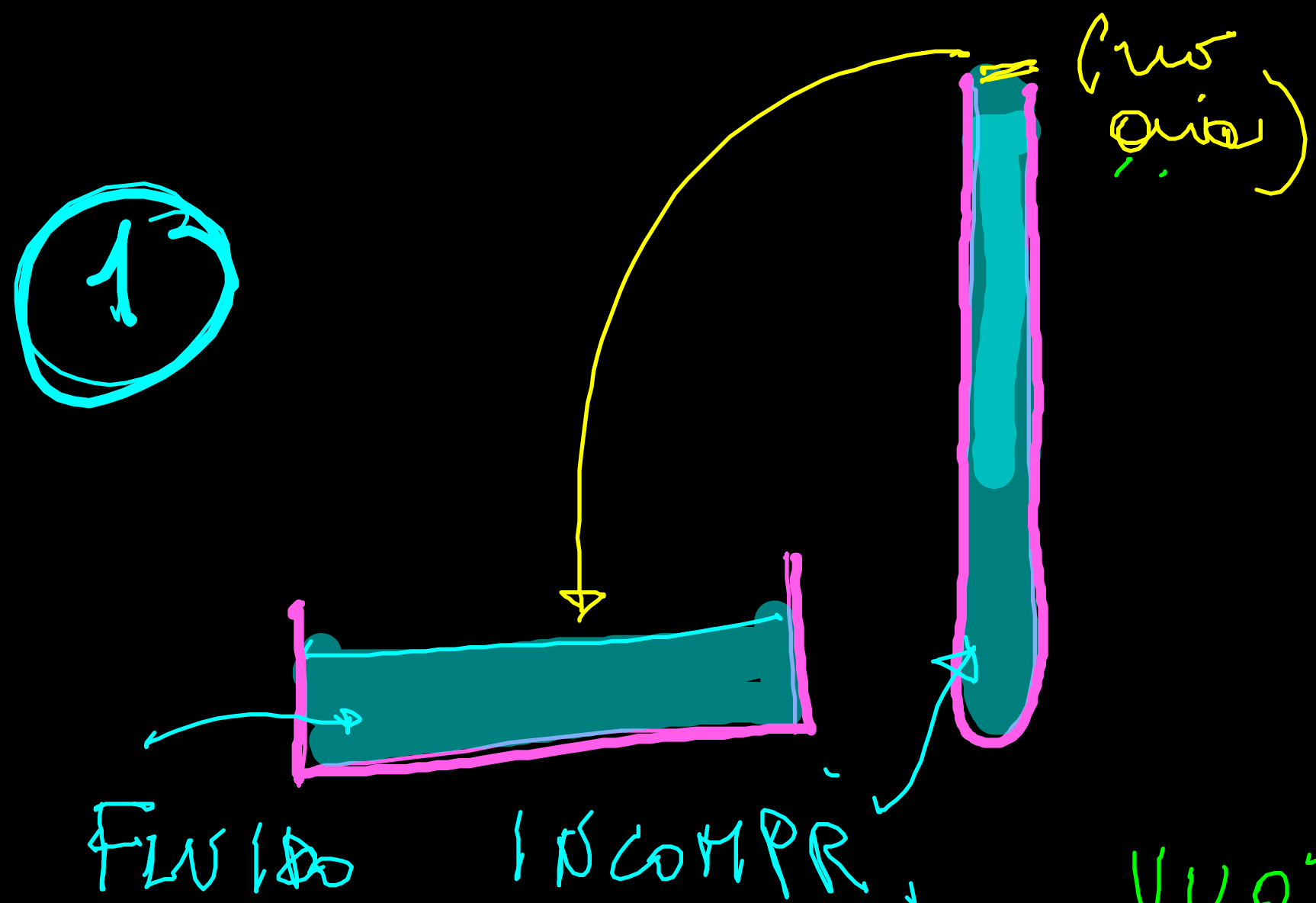
$$P_A = P_{\text{GAS}} = P_B = P_{\text{atm}} + \rho g h$$

Pressione assoluta

$$P_r = P_B - P_{\text{atm}} = \rho g h$$

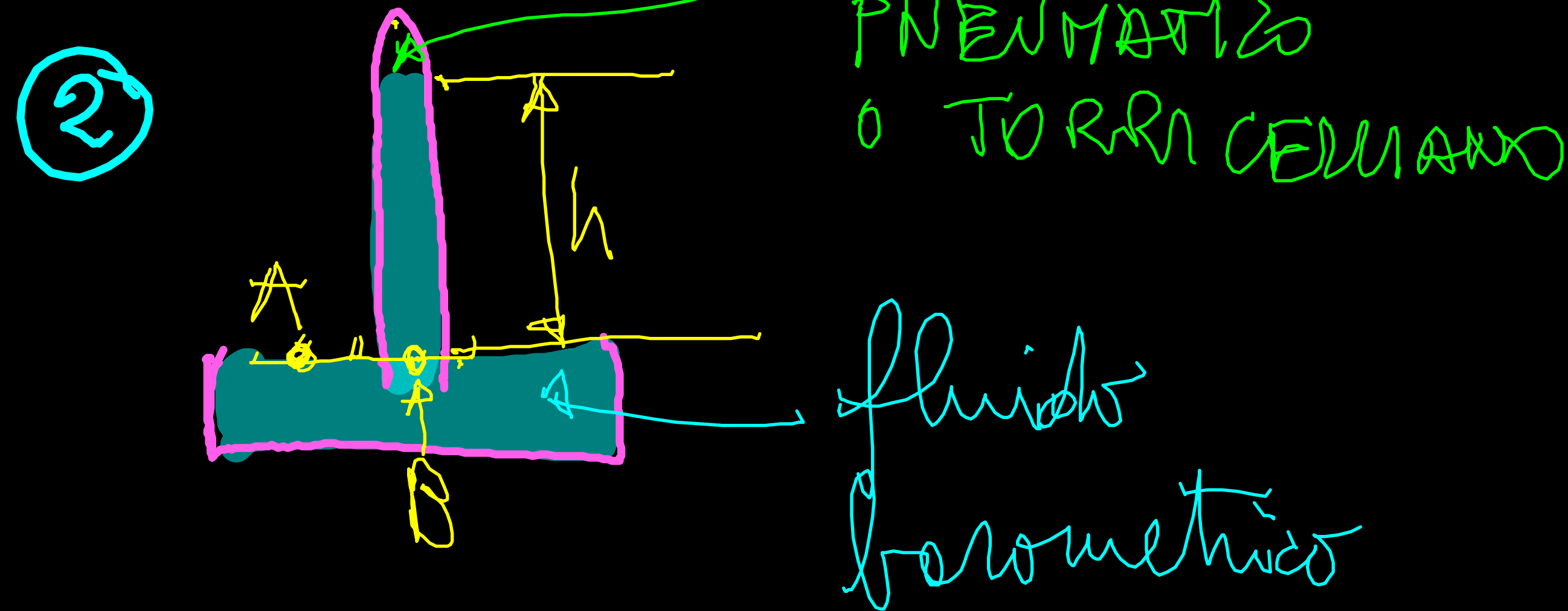
$P_r$  pressione relativa

# BAROMETRO DI TORRICELLI



$$P_A = P_B \quad (\text{all'equilibrio})$$

$$P_A = P_{ATM} = \rho_{\text{fluido}} g h$$



MERCURIO [Hg]

$$h_{\text{Hg}} = 760 \text{ mm}$$

$$\frac{\rho_{\text{Hg}}}{\rho_{\text{H}_2\text{O}}} = 13.6$$

$$h_{\text{H}_2\text{O}} = (13.6)(0.76) = 10 \text{ m}$$

# UNITA' DI MISURA DELLA P

$$P_{\text{ATM}} \text{ (liv. del mare)} = 760 \text{ mm Hg} = 760 \text{ Torr}$$

$T = 300 \text{ K}$   
(NON S.I.)

$$1 \text{ bar} = 10^5 \frac{\text{N}}{\text{m}^2}$$

$$\overset{\text{S.I.}}{\underbrace{101300 \frac{\text{N}}{\text{m}^2}}_{\text{S.I.}}} = 101300 \text{ Pa}$$

$$P_{\text{ATM}} = 1013 \text{ mBar}$$

$$1 \frac{\text{N}}{\text{m}^2} = 1 \text{ Pascal}$$

