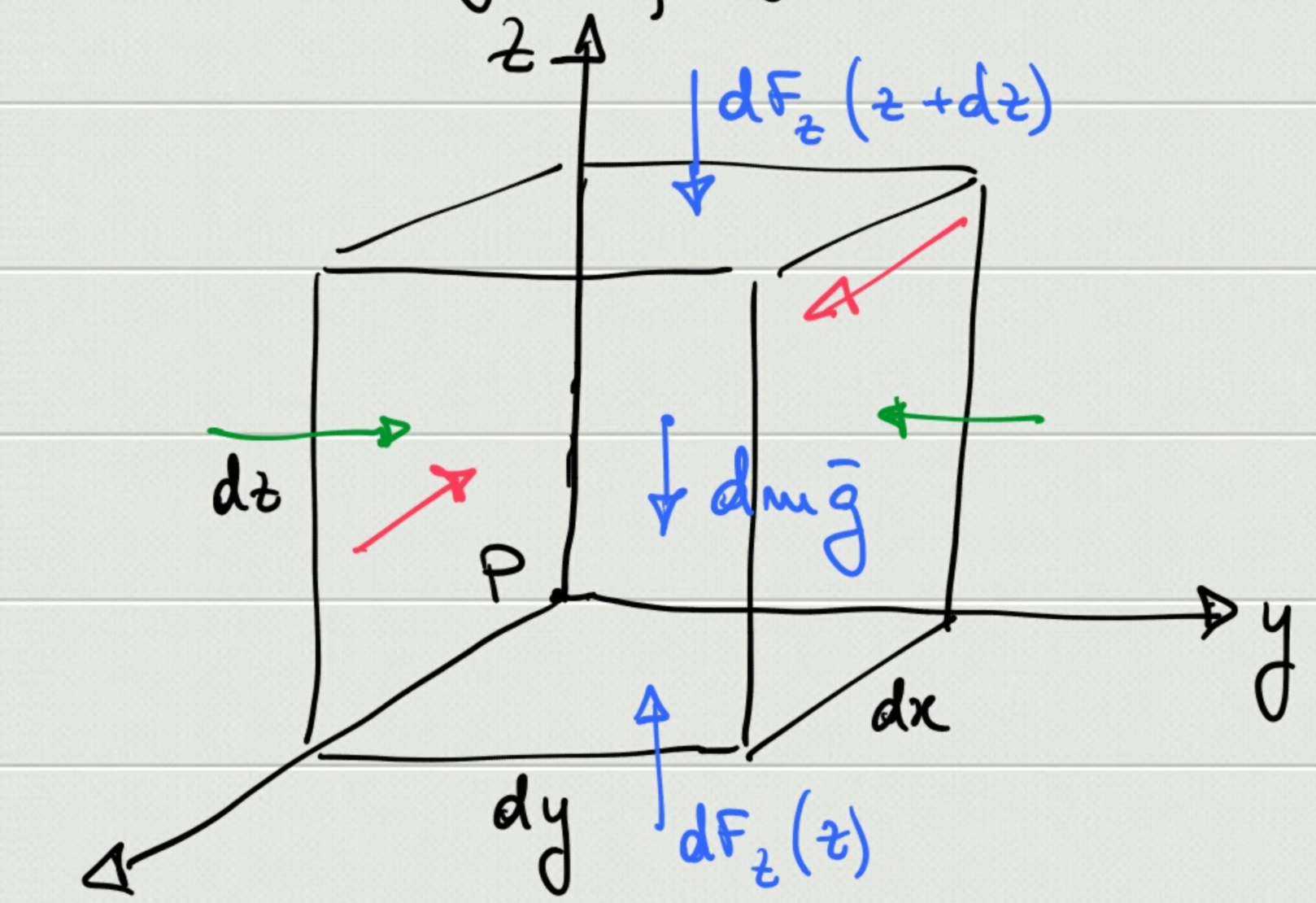
$$\bar{F}_{sup} + \bar{F}_{v.e} = \bar{R}$$

$$p\,S \qquad k\,V$$

$$\bar{F} = m\bar{a} = \rho V \bar{a} \Rightarrow k = \rho a$$

$$F_{v.e} = \bar{P} = m\bar{g} = \rho V \bar{g}$$



ρ, $\eta = 0$

$P(x, y, z)$

Statico

$$\Rightarrow \boxed{d\bar{F}_S + d\bar{F}_V = 0}$$

$$x: dF_x(x) - dF_x(x+dx) = 0$$

$$y: dF_y(y) - dF_y(y+dy) = 0$$

$$z: dF_z(z) - dF_z(z+dz) - dm\,g = 0$$

x : $\quad dF_x(x) = dF_x(x+dx)$

$$p(x)\,\cancel{dy\,dz} = p(x+dx)\,\cancel{dy\,dz}$$

$$\Rightarrow p(x) = p(x+dx)$$

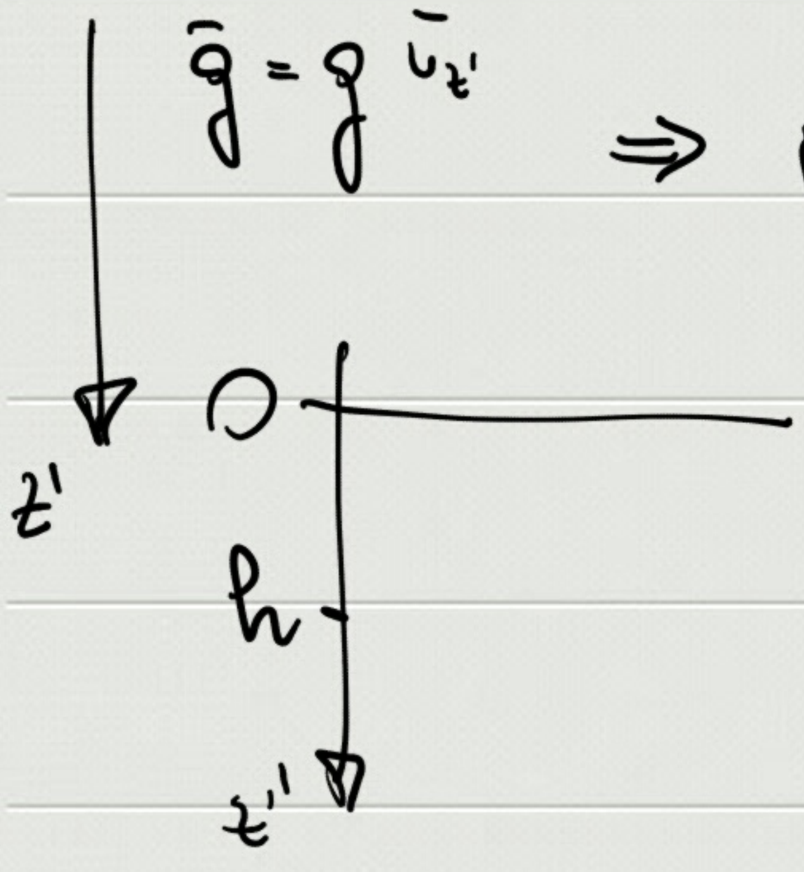
y : $\quad \Rightarrow p(y) = p(y+dy)$

z : $\quad p(z)\,\cancel{dx\,dy} - p(z+dz)\,\cancel{dx\,dy} = \rho g\,\cancel{dx\,dy}\,dz$

$$\Rightarrow \frac{p(z+dz)-p(z)}{dz} = -\rho g \;\Bigg\} \boxed{dp = -\rho g\,dz}$$

$$= \frac{dp}{dz}$$

$$\Rightarrow \int_{p_1}^{p_2} dp = -\int_{z_1}^{z_2} \rho g\,dz \quad \Rightarrow \boxed{p(z_2) = p(z_1) - \rho g (z_2 - z_1)}$$



$$\Rightarrow p(z_2') = p(z_1') + \rho g (z_2' - z_1')$$

$$\Rightarrow \boxed{p(h) = p(0) + \rho g h}$$

Legge di Stevino