Bernoulli equation

@wikipedia

Momentum equation for the 1D stationary incompressible Inviscid fluid flow in Earth's Gravity with no friction (a partial case of Euler equation):

(1) $$\frac{p(l)}{\rho} + \frac{u^2}{2} - g \cdot z(l) = \text{const}$$

where

$z(l) = l \cos\theta$	elevation along the 1D flow trajectory
l	measured length along the 1D flow trajectory
$\theta(l)$	trajectory deviation
$u = u(l)$	fluid velocity along the trajectory
$p = p(l)$	fluid pressure along the trajectory
$\rho = \text{const}$	fluid density
$g = \text{const}$	standard gravity constant

See Euler equation for derivation.

See also

Physics / Mechanics / Continuum mechanics / Fluid Mechanics / Fluid Dynamics / Fluid flow / Navier–Stokes equation / Euler equation