Momentum equation

@wikipedia

(1) $$\frac{D\mathbf{u}}{Dt} = \frac{1}{\rho}\nabla\sigma + \mathbf{g}$$

where

$(t, \mathbf{r})$	time and spatial variables
$\mathbf{u}(t, \mathbf{r})$	velocity of Continuum Body
$\rho(t, \mathbf{r})$	density of Continuum Body
$\sigma(t, \mathbf{r})$	stress tensor of Continuum Body
$\mathbf{g}(t, \mathbf{r})$	sum of all body forces exerted on Continuum Body
$\mathbf{f}_{\text{cnt}}(t, \mathbf{r})$	volumetric density of all contact forces exerted on Continuum Body
$\frac{D}{Dt} = \frac{\partial}{\partial t} + \mathbf{u}\nabla$	Material derivative of the Continuum Body motion

In Fluid Mechanics it's known as Navier–Stokes equation and based on specific view of the stress tensor.

(2) $$\sigma = -p - \mu \cdot \left[\Delta\mathbf{u} + \frac{1}{3}\mathbf{u}\nabla\mathbf{u}\right]$$

See also

Physics / Mechanics / Continuum mechanics

[Continuum Body] [Navier–Stokes equation]