Conservation of linear momentum

$$\rho \frac{\partial^2 u_1}{\partial t^2} = \frac{\partial S_{11}}{\partial x_1} + \frac{\partial S_{12}}{\partial x_2} + \frac{\partial S_{13}}{\partial x_3} + \rho b_1$$

$$\rho \frac{\partial^2 u_2}{\partial t^2} = \frac{\partial S_{12}}{\partial x_1} + \frac{\partial S_{22}}{\partial x_2} + \frac{\partial S_{23}}{\partial x_3} + \rho b_2$$

$$\rho \frac{\partial^2 u_1}{\partial t^2} = \frac{\partial S_{13}}{\partial x_1} + \frac{\partial S_{23}}{\partial x_2} + \frac{\partial S_{33}}{\partial x_3} + \rho b_3$$