

**Main:**

$$\begin{aligned} \frac{\partial^\alpha u}{\partial t^\alpha} + (\beta + \varepsilon u^p + \epsilon u^{2p}) u_x + \rho u^{2r} u_{xx} + \\ \nu u^{3s} u_{xxx} + \vartheta u^{4k} u_{xxxx} = \eta u(\tau - u^m)(u^n - \omega), \end{aligned} \quad (0.1)$$

$t > 0, 0 < \alpha < 1, \beta = \varepsilon = \epsilon = \rho = \nu = \vartheta = \eta = \omega = const, p, r, s, k, m, n \geq 0$

**eqnarray with &:**

$$\begin{aligned} \frac{\partial^\alpha u}{\partial t^\alpha} + (\beta + \varepsilon u^p + \epsilon u^{2p}) u_x + \rho u^{2r} u_{xx} + \\ \nu u^{3s} u_{xxx} + \vartheta u^{4k} u_{xxxx} = \eta u(\tau - u^m)(u^n - \omega), \end{aligned} \quad (0.2)$$

$t > 0, 0 < \alpha < 1, \beta = \varepsilon = \epsilon = \rho = \nu = \vartheta = \eta = \omega = const, p, r, s, k, m, n \geq 0$

**align with &:**

$$\begin{aligned} \frac{\partial^\alpha u}{\partial t^\alpha} + (\beta + \varepsilon u^p + \epsilon u^{2p}) u_x + \rho u^{2r} u_{xx} + \\ \nu u^{3s} u_{xxx} + \vartheta u^{4k} u_{xxxx} = \eta u(\tau - u^m)(u^n - \omega), \end{aligned} \quad (0.3)$$

$t > 0, 0 < \alpha < 1, \beta = \varepsilon = \epsilon = \rho = \nu = \vartheta = \eta = \omega = const, p, r, s, k, m, n \geq 0$

**split:**

$$\begin{aligned} \frac{\partial^\alpha u}{\partial t^\alpha} + (\beta + \varepsilon u^p + \epsilon u^{2p}) u_x + \rho u^{2r} u_{xx} + \\ \nu u^{3s} u_{xxx} + \vartheta u^{4k} u_{xxxx} = \eta u(\tau - u^m)(u^n - \omega), \end{aligned} \quad (0.4)$$

$t > 0, 0 < \alpha < 1, \beta = \varepsilon = \epsilon = \rho = \nu = \vartheta = \eta = \omega = const, p, r, s, k, m, n \geq 0$