$$TP - TP_0 = \int_0^L \left\{ \frac{\sigma}{4}(\phi'')^2 + \frac{\lambda}{2}(\phi\phi')^2 + \frac{\delta}{2}(\phi')^2 + \right.$$

$$\left. + \frac{\alpha}{2}\phi^2 + \frac{\beta}{4}\phi^4 + \frac{\gamma}{6}\phi^6 \right\} dX$$

$$\Phi = \frac{\Phi_0}{L} \cdot \int_0^L \left[(\varphi'')^2 - g(\varphi\varphi')^2 - \gamma(\varphi')^2 + q\varphi^2 + \frac{p}{2}\varphi^4 + \frac{h}{3}\varphi^6 \right] dx$$

$$h = \gamma = 1$$

$$\varphi^{(VI)} + g\left(\varphi^2\varphi'' + \varphi(\varphi')^2\right) + \gamma\varphi'' + q\varphi + p\varphi^3 + h\varphi^5 = 0$$

$$(\varphi')^2 = \sum_{n=0}^{\infty} a_n \varphi^{2n} \qquad (\varphi')^2 = \sum_{n=0}^{N} a_n \varphi^{2n}$$

$$\varphi(x) = \frac{A\, f(bx,k)}{\sqrt{C - f^2(bx,k)}}$$

$$f(bx,k) \in \{ sn(bx,k), cn(bx,k), dn(bx,k) \}$$

$$\varphi^2(x) = Q \frac{1 - \dfrac{cn(\omega x,k)}{dn(\omega x,k)}}{\dfrac{m_1}{n_1} - \dfrac{cn(\omega x,k)}{dn(\omega x,k)}}$$

$$\varphi(x) = a \cdot \sin(bx)$$

$$\varphi(x) = a \cdot \mathrm{sn}(bx, k)$$

$$TP - TP_0 = \frac{1}{L}\int_0^L \left\{ \frac{\sigma}{4}(\phi'')^2 + \frac{\lambda}{2}(\phi\phi')^2 + \frac{\delta}{2}(\phi')^2 + \right.$$

$$\left. + \frac{\alpha}{2}\phi^2 + \frac{\beta}{4}\phi^4 + \frac{\gamma}{6}\phi^6 + \frac{c}{2}u^2 + r\phi^2 u \right\} dX.$$

g и p - исходные