$$E = \frac{1}{\sigma\_N^2} E\_I + \sum_{j>1} \frac{\alpha_j^2}{\sigma\_S_j^2} + \sum_{j>1} \frac{\beta_j^2}{\sigma\_T_j^2} + \sum_j \frac{\left(\rho_j - \bar{\rho}_j\right)^2}{\sigma\_\rho_j^2}$$

where

- $\sigma\_N \in \mathbb{R}$
- $E\_I \in \mathbb{R}$
- $\alpha_i \in \mathbb{R}$
- $\beta_i \in \mathbb{R}$
- $\sigma\_S_i \in \mathbb{R}$
- $\sigma\_T_i \in \mathbb{R}$
- $\rho_i \in \mathbb{R}$
- $\bar{\rho}_i \in \mathbb{R}$
- $\sigma\_\rho_i \in \mathbb{R}$
- $\bar{a}_i \in \mathbb{R}$