$$E = \frac{1}{\sigma_{-}N^{2}}E_{-}I + \sum_{j} \frac{\alpha_{j}^{2}}{\sigma_{-}S_{j}^{2}} + \sum_{j} \frac{\beta_{j}^{2}}{\sigma_{-}T_{j}^{2}} + \sum_{j} \frac{\left(\rho_{j} - \bar{\rho}_{j}\right)^{2}}{\sigma_{-}\rho_{j}^{2}}$$

## where

 $\sigma_N \in \mathbb{R}$ 

 $E_I \in \mathbb{R}$ 

 $\alpha_i \in \mathbb{R}$   $\beta_i \in \mathbb{R}$ 

 $\sigma_{\underline{S}_i} \in \mathbb{R}$ 

 $\sigma_{T_i} \in \mathbb{R}$ 

 $\rho_i \in \mathbb{R}$ 

 $\bar{\rho}_i \in \mathbb{R}$ 

 $\sigma_{\underline{\rho}_j} \in \mathbb{R}$   $\bar{a}_i \in \mathbb{R}$