

$$\varphi(r) = \exp\left(-\frac{r^2}{\varsigma_k^2}\right)$$

where

$$\varsigma_k^2 = 10 \times 2\sigma_k^2$$

or

$$\left(\varsigma_1^2, \varsigma_1^2 \frac{\sigma_2^2}{\sigma_1^2}, \dots, \varsigma_d^2 \frac{\sigma_d^2}{\sigma_1^2}\right)$$