

$$G_{-\sigma}(s_{-i}k)=\sum_j l_j exp\left(-\frac{dist\left(b_i,b_j\right)}{2\sigma^2}\right)\left(s_j\right)^k$$

where

$l_j \in \mathbb{R}$ the length of b_j

$dist \in \mathbb{R}^n, \mathbb{R}^n \rightarrow \mathbb{R}$ measures the geodesic distance between the centers of b_i and b_j along the boundary

$\sigma \in \mathbb{R}$

$b_i \in \mathbb{R}^n$

$b_j \in \mathbb{R}^n$

$s_j \in \mathbb{R}$ unit direction vector of b_i

$k \in \mathbb{R}$ iteration number