

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

where

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

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

$$\sigma \in \mathbb{R}$$

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

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

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

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