

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

where

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

$dist \in \mathbb{R}^2, \mathbb{R}^2 \rightarrow \mathbb{R}$ measures the geodesic distance

$b_i \in \mathbb{R}^2$

$b_j \in \mathbb{R}^2$

$\sigma \in \mathbb{R}$

$s\hat{k}_j \in \mathbb{R}^2$ direction vector