

from trigonometry import cos

$$b = \sum_i \cos(\theta)^2 ((p_i - q_i) \cdot n_i + ((p_i + q_i) \times n_i) \cdot \tilde{a} + n_i \cdot \tilde{t})^2$$

where

- $\theta \in \mathbb{R}$  :angle of rotation
- $p_i \in \mathbb{R}^3$
- $q_i \in \mathbb{R}^3$
- $n_i \in \mathbb{R}^3$
- $\tilde{a} \in \mathbb{R}^3$
- $\tilde{t} \in \mathbb{R}^3$