

from trigonometry import cos

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

where

$$\theta \in \mathbb{R} \text{ angle of rotation}$$

$$p_i \in \mathbb{R}^3$$

$$q_i \in \mathbb{R}^3$$

$$n_i \in \mathbb{R}^3$$

$$\tilde{a} \in \mathbb{R}^3$$

$$\tilde{t} \in \mathbb{R}^3$$