

from trigonometry import tan, cos

$$\tilde{t} = \frac{t}{\cos(\theta)}$$

$$\tilde{a} = \operatorname{atan}(\theta)$$

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

where

$$a \in \mathbb{R}^3 \text{ axis of rotation}$$

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

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

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

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

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