

from trigonometry import tan, cos

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

$$\tilde{a} = a \tan(\theta)$$

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

where

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

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

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

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

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

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