

$$p0 = \begin{bmatrix} V_{v0,1} & V_{v0,2} & V_{v0,3} \end{bmatrix}$$

$$p1 = \begin{bmatrix} V_{v1,1} & V_{v1,2} & V_{v1,3} \end{bmatrix}$$

$$p2 = \begin{bmatrix} V_{v2,1} & V_{v2,2} & V_{v2,3} \end{bmatrix}$$

$$x0s = ||p0||_F^2$$

$$Mi = \begin{bmatrix} 2 \left(p1 - p0 \right) \\ 2 \left(p2 - p0 \right) \\ n^T \end{bmatrix}^{-1}$$

$$m = Mi \left(||p1||_F^2 - x0s, ||p2||_F^2 - x0s, p0 \cdot n \right)$$

where

$$v0 \in \mathbb{Z} \text{ index}$$

$$v1 \in \mathbb{Z} \text{ index}$$

$$v2 \in \mathbb{Z} \text{ index}$$

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

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