from trigonometry import atan2

$$\mathbf{a} = v_\mathrm{i} - p$$
$$\mathbf{b} = v_\mathrm{j} - p$$
$$\mathbf{c} = v_k - p$$
$$a = \|\mathbf{a}\|_2$$
$$b = \|\mathbf{b}\|_2$$
$$c = \|\mathbf{c}\|_2$$
$$\frac{atan2\left(|\begin{bmatrix}\mathbf{a} & \mathbf{b} & \mathbf{c}\end{bmatrix}|, \left(abc + \left(\mathbf{a} \cdot \mathbf{b}\right) c + \left(\mathbf{b} \cdot \mathbf{c}\right) a + \left(\mathbf{c} \cdot \mathbf{a}\right) b\right)\right)}{2\pi}$$

where

$$v_\mathrm{i} \in \mathbb{R}^3$$
$$v_\mathrm{j} \in \mathbb{R}^3$$
$$v_k \in \mathbb{R}^3$$
$$p \in \mathbb{R}^3$$