$$\begin{split} \bar{r} &= \bar{v} \times \bar{o} \\ \bar{s} &= \bar{o} \times \bar{u} \\ \bar{n} &= \bar{u} \times \bar{v} \\ k_{r} &= \bar{r} \cdot (C_{a} - V) \\ k_{s} &= \bar{s} \cdot (C_{a} - V) \\ k_{n} &= \bar{n} \cdot (C_{a} - V) \\ x(\theta, v) &= \frac{\bar{r} \cdot D_{-}A(\theta, v) + k_{r}\delta(\theta, v)}{\bar{n} \cdot D_{-}A(\theta, v) + k_{s}\delta(\theta, v)} \\ y(\theta, v) &= \frac{\bar{s} \cdot D_{-}A(\theta, v) + k_{s}\delta(\theta, v)}{\bar{n} \cdot D_{-}A(\theta, v) + k_{s}\delta(\theta, v)} \end{split}$$

where

$$egin{aligned} ar{u} &\in \mathbb{R}^3 \ ar{V} &\in \mathbb{R}^3 \ egin{aligned} C_a &\in \mathbb{R}^3 \ eta &\in \mathbb{R} \ \end{pmatrix} \ egin{aligned} \theta &\in \mathbb{R} \ ar{V} &\in \mathbb{R} \ \end{pmatrix} \ egin{aligned} \delta &\in \mathbb{R}, \mathbb{R} &\to \mathbb{R} \ \end{pmatrix} \end{aligned}$$

 $\bar{\mathbf{v}} \in \mathbb{R}^3$ $\bar{\mathbf{o}} \in \mathbb{R}^3$