$$u(\tilde{x}) = [\alpha(\tilde{x}), \beta(\tilde{x}), \gamma(\tilde{x})],\ u'(\tilde{x}) = \frac{du}{d\vec{x}} = \begin{bmatrix} \frac{d\alpha}{dx} & \frac{d\alpha}{dy} & \frac{d\alpha}{dz} \\ \frac{d\beta}{dx} & \frac{d\beta}{dy} & \frac{d\beta}{dz} \\ \frac{d\gamma}{dx} & \frac{d\gamma}{dy} & \frac{d\gamma}{dz} \end{bmatrix}$$

$$q = \begin{bmatrix} \alpha_1 & \beta_1 & \gamma_1 \\ \alpha_2 & \beta_2 & \gamma_2 \\ \alpha_3 & \beta_3 & \gamma_3 \end{bmatrix}$$