

$$\mathcal{P} \quad \mathcal{R}, \quad \mathcal{R}_\infty$$

$$P\left|\begin{array}{c}x_0\\y_0\\z_0\end{array}\right.\qquad E\left|\begin{array}{c}x_0(E)\\y_0(E)\\z_0(E)\end{array}\right.\qquad P\left|\begin{array}{c}x_1\\y_1\\z_1\end{array}\right.$$

$$\overrightarrow{SP}\left|\begin{array}{c}x_0\\y_0\\z_0\end{array}\right.\qquad \overrightarrow{SE}\left|\begin{array}{c}x_0(E)\\y_0(E)\\z_0(E)\end{array}\right.\qquad \overrightarrow{EP}\left|\begin{array}{c}x_1\\y_1\\z_1\end{array}\right.$$

$$\left\{\begin{array}{l}x_1=x_0-x_0(E)\\y_1=y_0-y_0(E)\\z_1=z_0-z_0(E)\end{array}\right.$$

$$\overrightarrow{SE}=-\overrightarrow{ES}$$

$$S\left|\begin{array}{c}x_1(S)\\y_1(S)\\z_1(S)\end{array}\right.\qquad \left\{\begin{array}{l}x_1(S)=-x_0(E)\\y_1(S)=-y_0(E)\\z_1(S)=-z_0(E)\end{array}\right.$$

$$\overrightarrow{V_0}(E) \quad \overrightarrow{V_0}(P) \quad \overrightarrow{V_1}(P)$$

$$\overrightarrow{V_1}(P)=\overrightarrow{V_0}(P)-\overrightarrow{V_0}(E)$$

$$\overrightarrow{V_1}(S)=-\overrightarrow{V_0}(E)$$

$$(x_D^A,y_D^A,z_D^A)$$

$$(x_F^A,y_F^A,z_F^A)$$

$$(x_V^A,y_V^A,z_V^A)$$

$$(x_V^E,y_V^E,z_V^E)$$

$$\begin{pmatrix} x_D^A \\ y_D^A \\ z_D^A \end{pmatrix} = \begin{pmatrix} \cos(z_A + \zeta_A) - 2 \sin^2 \frac{\theta_A}{2} \cos z_A \cos \zeta_A & -\sin(z_A + \zeta_A) + 2 \sin^2 \frac{\theta_A}{2} \cos z_A \sin \zeta_A & -\cos z_A \sin \theta_A \\ \sin(z_A + \zeta_A) - 2 \sin^2 \frac{\theta_A}{2} \sin z_A \cos \zeta_A & \cos(z_A + \zeta_A) + 2 \sin^2 \frac{\theta_A}{2} \sin z_A \sin \zeta_A & -\sin z_A \sin \theta_A \\ \cos \zeta_A \sin \theta_A & -\sin \zeta_A \sin \theta_A & \cos \theta_A \end{pmatrix} \begin{pmatrix} x_F^A \\ y_F^A \\ z_F^A \end{pmatrix}$$

$$\begin{pmatrix} x_V^A \\ y_V^A \\ z_V^A \end{pmatrix} = \begin{pmatrix} \cos \Delta\psi & -\sin \Delta\psi \cos \varepsilon_A & -\sin \Delta\psi \sin \varepsilon_A \\ \cos \varepsilon'_A \sin \Delta\psi & \cos \Delta\varepsilon - 2 \sin^2 \frac{\Delta\psi}{2} \cos \varepsilon_A \cos \varepsilon'_A & -\sin \Delta\varepsilon - 2 \sin^2 \frac{\Delta\psi}{2} \sin \varepsilon_A \cos \varepsilon'_A \\ \sin \varepsilon'_A \sin \Delta\psi & \sin \Delta\varepsilon - 2 \sin^2 \frac{\Delta\psi}{2} \cos \varepsilon_A \sin \varepsilon'_A & \cos \Delta\varepsilon - 2 \sin^2 \frac{\Delta\psi}{2} \sin \varepsilon_A \sin \varepsilon'_A \end{pmatrix} \begin{pmatrix} x_D^A \\ y_D^A \\ z_D^A \end{pmatrix}$$

$$\begin{pmatrix} x_V^E \\ y_V^E \\ z_V^E \end{pmatrix} = \begin{pmatrix} 1 & 0 & 1 \\ 1 & \cos \epsilon'_A & \sin \epsilon'_A \\ 0 & -\sin \epsilon'_A & \cos \epsilon'_A \end{pmatrix} \begin{pmatrix} x_V^A \\ y_V^A \\ z_V^A \end{pmatrix}$$

$$\Delta\psi = \sum_{i=1}^{106} [A_i + A'_i \sin(\text{ARGUMENT})]$$

$$\Delta\epsilon = \sum_{i=1}^{106} [B_i + B'_i \cos(\text{ARGUMENT})]$$