

$$X, Y, Z = \sum_{\alpha=0}^5 \sum_{i=0}^n [A_i T^\alpha \cos(B_i + C_i T)]$$

$$\dot{X}, \dot{Y}, \dot{Z} = \sum_{\alpha=0}^5 \sum_{i=0}^n [-C_i A_i T^\alpha \sin(B_i + C_i T)]$$