Rotational Dynamics

$$J\dot{ec{\omega}} = ec{\omega} imes (Jec{\omega}) + ec{ au}_{ extit{dist}} + ec{ au}_{ extit{act}}$$

Rotational Kinematics. Quaternions

$$q = [\eta, \vec{\epsilon}]$$

$$\dot{\vec{\eta}} = \frac{1}{2} \vec{\epsilon} \cdot \omega_{ob}^{b}$$

$$\dot{\vec{\epsilon}} = \frac{1}{2} (\eta + Sq(\vec{\epsilon})) \vec{\omega}_{ob}^{b}$$