

$$\ddot{q}^+(t) = \frac{1}{2} \left\{ \frac{1}{q^-\left(t + \frac{4K}{3}\right) - q^-(t)} + \frac{1}{q^-\left(t - \frac{4K}{3}\right) - q^-(t)} \right\} - \frac{\sqrt{3}}{12} \left\{ \left(q^+\left(t + \frac{4K}{3}\right) - q^+(t) \right) + \left(q^+\left(t - \frac{4K}{3}\right) - q^+(t) \right) \right\}.$$