

- $r_{13} < r_{12} < r_{23}$

- $q_1 \wedge q_2 = q_2 \wedge q_3 = q_3 \wedge q_1 < 0$

- $\dot{\ell}_1 = \left( \frac{1}{r_{21}^3} - \frac{1}{r_{31}^3} \right) (q_2 \wedge q_3)$