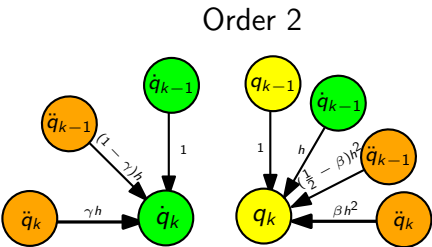


Newmark–Beta–Gamma (NBG) method



$$q_k = q_{k-1} + h \sum_{i=0}^1 a_i \dot{q}_{k-i}$$

$$\dot{q}_k = \dot{q}_{k-1} + h \sum_{i=0}^1 a_i \ddot{q}_{k-i}$$

