

$\mathbf{r}(t), \mathbf{v}(t)$

calculate $\mathbf{f}(t)$

→ update the positions

determine $\mathbf{f}_{\text{correct}}(t)$

deduce $\mathbf{r}^0(t + dt)$

update $\mathbf{v}(t)$ with $\mathbf{f}_{\text{correct}}(t)$

determine a_r

update $\mathbf{r}(t)$ and $\mathbf{v}(t)$ (contribution of position constraint at time t)

calculate $\mathbf{f}(t + dt)$

update the velocities

determine $\mathbf{f}_{\text{correct}}(t + dt)$

deduce $\mathbf{v}^0(t + dt)$

determine a_v

update $\mathbf{v}(t)$ (contribution of velocity constraint at time t)

$\mathbf{r}(t + dt), \mathbf{v}(t + dt)$