

simulation step

Neighbor search

Density ρ
Pressure p

Forces $F_{p,v,ext}$

Velocity v
Position x

simulation step

Neighbor search

Forces $F_{v,ext}$
Init pressure $p = 0$
Init $F^p = 0$

while($\rho^{*err} > \eta$)

Predict velocity v^*
Predict position x^*

Predict density ρ^*
Density variation ρ^{*err}
Pressure $p += f(\rho^{*err})$

Force F^p

Velocity v
Position x

iterative
prediction-correction
scheme