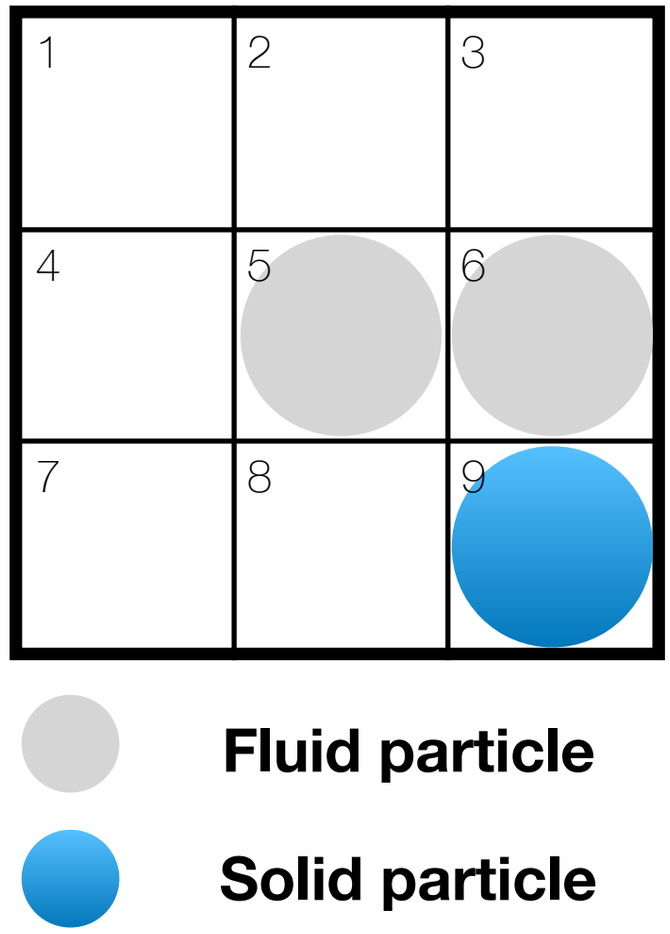
Method

- **Lattice model**
  - Cubic
- **Nearest neighbour interaction**
- **Mean Field Approximation**
  - Averaged occupancy
  - Ignores higher order density fluctuation



Equilibrium density distribution

$$\frac{1}{\beta}\ln\left[\frac{\rho_i}{1-\rho_i}\right] - \epsilon_{ff}\sum_j \rho_j + \psi_i - \mu = 0 \qquad \forall \quad i$$

Flux distribution

$$J_{i,j} = \omega_{i,j}\rho_i(1-\rho_j) - \omega_{j,i}\rho_j(1-\rho_i)$$

$$J_{i,j} = \omega_{i,j}\rho_i(1-\rho_j)\left[1 - \exp\left[\frac{\mu_j - \mu_i}{k_B T}\right]\right]$$