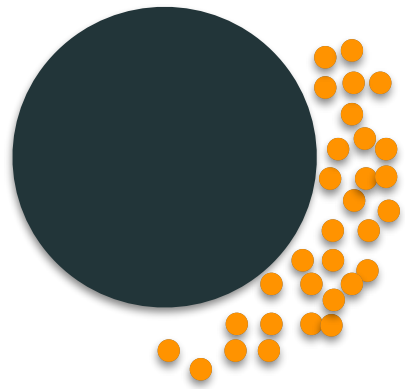


# COMPORTAMIENTO FLUIDO-SÓLIDO EN LA NANOESCALA

OPERADOR PROYECCIÓN  
**KAWASAKI-GUNTON**

+

APROXIMACIÓN  
**MARKOVIANA**



$$\partial_t \rho(\mathbf{r}) = -\nabla \cdot \mathbf{g}(\mathbf{r})$$

$$\partial_t \mathbf{g}(\mathbf{r}) = -\nabla \cdot (\mathbf{g}(\mathbf{r}) \mathbf{v}(\mathbf{r})) - \rho(\mathbf{r}) \nabla \frac{\delta \mathcal{F}}{\delta \rho(\mathbf{r})}[\rho, \mathbf{R}] \\ + \nabla \cdot \Sigma(\mathbf{r}) + \mathcal{S}(\mathbf{r})$$

$$\dot{\mathbf{R}} = \frac{\mathbf{P}}{M}$$

$$\dot{\mathbf{P}} = -\frac{\partial \mathcal{F}}{\partial \mathbf{R}} - \int d\mathbf{r} \mathcal{S}(\mathbf{r})$$

TEORÍA DE MORI

$$C(t) = \exp\{-\Lambda^* t\} \cdot C(0)$$

SIMULACIONES DM

CONDICIÓN DE CONTORNO  
DE SLIP

