

## Coarse grained dynamics and mesoscopic computational methods

Ignacio Pagonabarraga, Universitat de Barcelona

In this set of lectures I will focus on the basics of coarse grained dynamics and the use of mesoscopic computational methods to study the physical properties of complex systems.

I will discuss the theoretical foundations of some of these approaches and will describe how the knowledge of kinetic theory can be used to implement them. I will also analyze the flexibility of these approaches to address a variety of complex fluids. I will show how coarse grained models can be used and the information that can provide.