Computer simulation in Condensed matter physics: from idealised models to ab-initio methods

Pietro Ballone

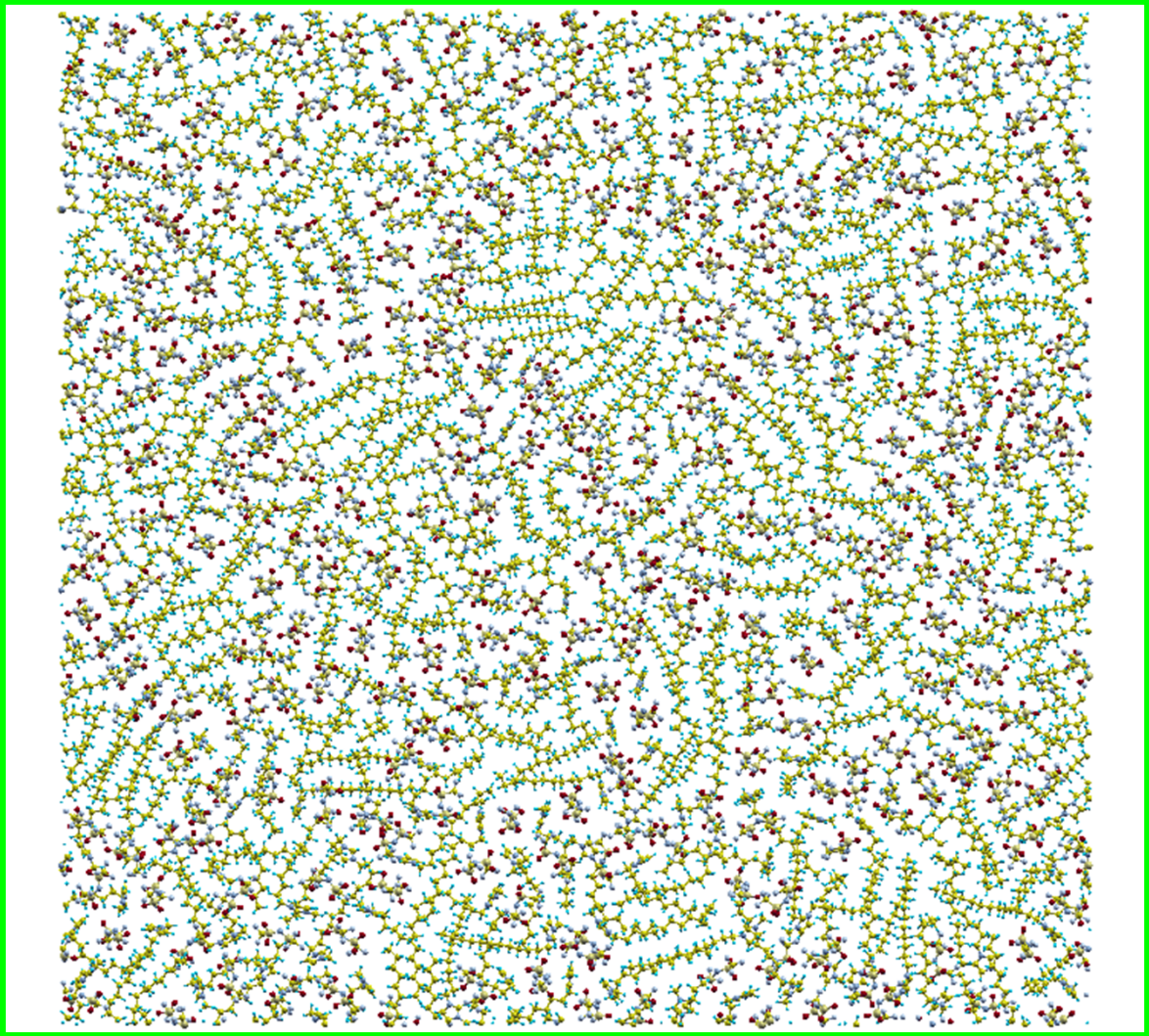
1) Physics Department, NTNU, Trondheim, and
2) Italian Institute of Technology, Rome, Italy

Main interests:

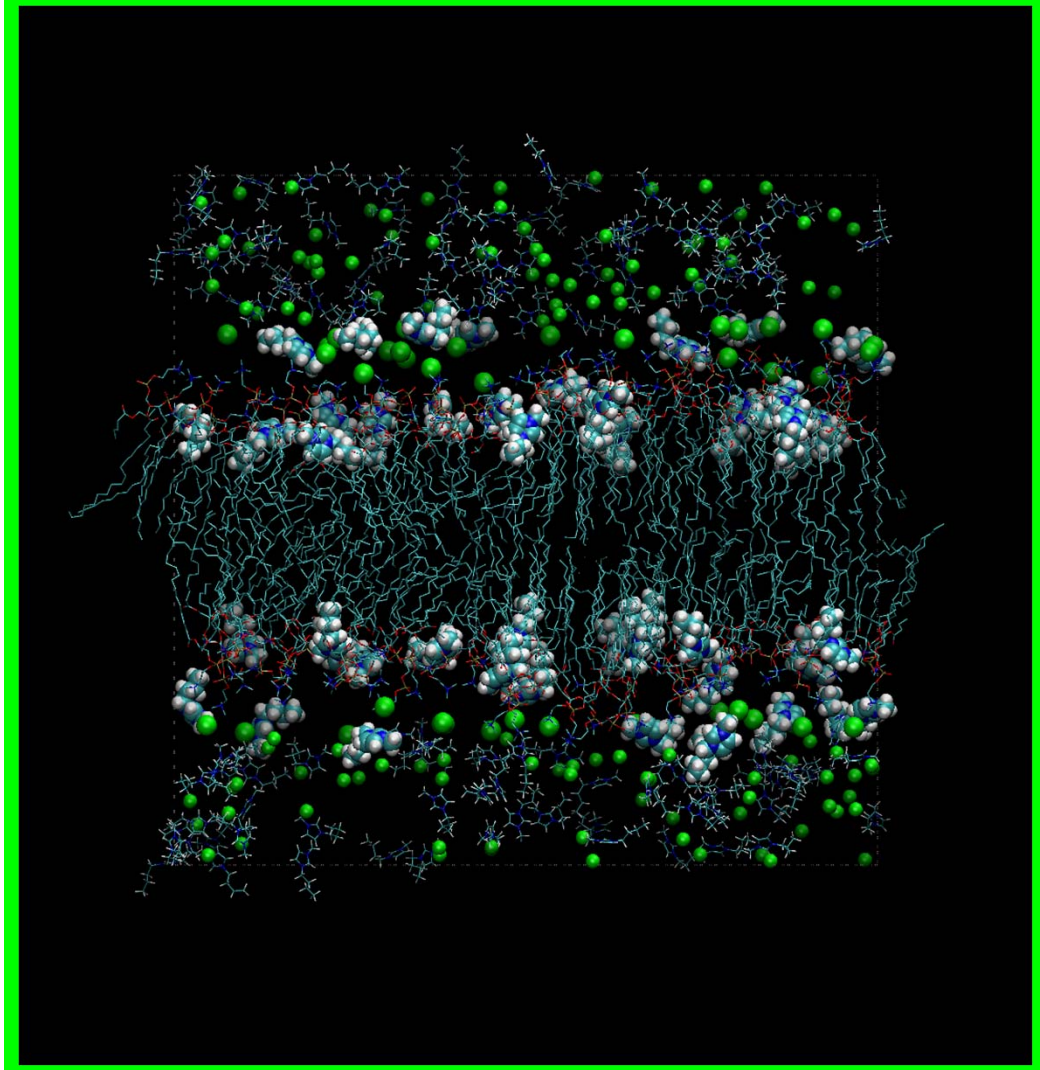
Investigate equilibrium and non-equilibrium properties of classical and quantum many-particle systems by computer simulation

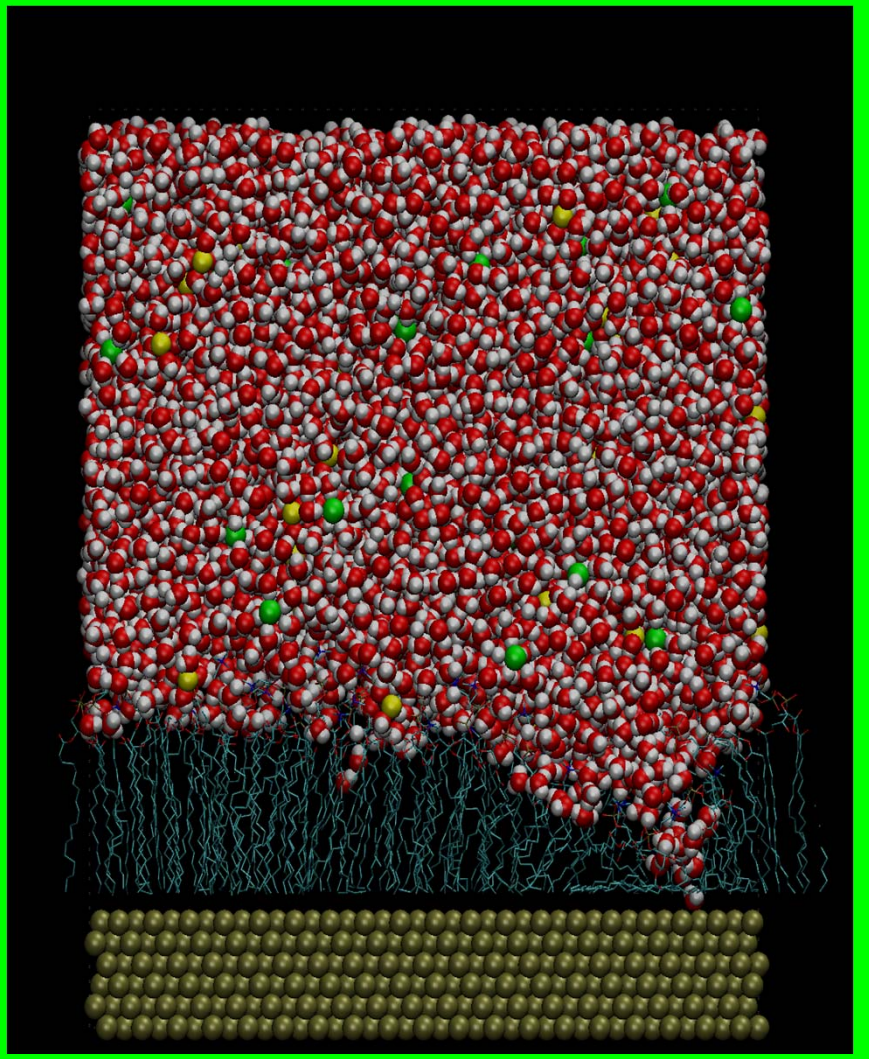
Compute structural, dynamical and electronic properties of molecules, liquids and solids.

Organic ionic films on solid surfaces: innovative “green” lubricants



Lipid bilayers in electrolyte solutions and at surfaces





Spin polarisation and charge localisation in metal nanowires