

Course offered for the STAT PhD program starting from a.y. 2019/2020

TITLE	Advanced Scanning Probe Microscope
Lecturer	Paolo Facci
Duration and Credits	8 hours – 2 CFU
Course description	<p>Scanning probe techniques in Surface Science and related fields are to date well established approaches to sample characterization, all the way down to atomic resolution level.</p> <p>Taking advantage of different chemical-physical observables (force, electric current, electric potential, light), that can be measured as a result of the interaction of a tiny probe with a surface in the so called near-field regime, a remarkable variety of sample parameters (topography, surface charge, mechanical properties, local friction, local adhesion, surface potential, heterogeneous electron transfer and many more) can be assessed.</p> <p>Details as minute as the probe tip can be disclosed in samples of different nature and under different environmental conditions.</p> <p>Single molecules and single atoms can be image, characterized, and manipulated at will using these instruments that configure genuine nanotools and nanometer resolution microscopes.</p>
Course organization	
Teaching period	