



**CENTRO DI BIOMINERALOGIA
CRISTALLOGRAFIA E
BIOMATERIALI
UNIVERSITÀ DI BOLOGNA**

ADVANCED SPM APPLICATIONS TO MINERAL, BIOLOGICAL AND MATERIAL SCIENCES

July 5, 2013 – Bologna

**Dept. of Biological, Geological and Environmental Sciences
Via Selmi 3 (Aula Magna di Anatomia Comparata – 2° piano)
University of Bologna, Italy**

PROGRAMME

10.15-10.30 Welcome and opening address

Prof. Davide Pettener (Head of Dept. BiGeA-UniBo); Giovanni Valdrè (BiGeA-UniBo, AIC)

- 1) 10.30-11.10 Giampaolo Zuccheri (UniBo) - AFM-based force spectroscopy: principles and applications on biological macromolecules
- 2) 11.10-11.50 Cristiano Albonetti, Francesco Valle (ISMN-CNR) – Advanced SPM applications to organic and biological materials
- 3) 11.50-12.30 Andrea Alessandrini (UniMoRe) - Atomic Force Microscopy of models of the biological membrane and structural investigation of 2D membrane protein crystals
- 4) 12.30-13.10 Massimo Marcaccio, Stefania Rapino (Ciamician-UniBo) - Scanning electrochemical microscopy in biology and material science

13.10-14.30 Lunch Break

14.30-16.10 Contributions from the companies: Innovations in SPM

- 14.30-14.50 Agilent - Scanning Microwave Microscopy
- 14.50-15.10 Bruker - FastScan and Quantitative NanoMechanical Analysis
- 15.10-15.30 NT-MTD – Tip Enhanced Raman Spectroscopy
- 15.30-15.50 Park-Gambetti – Scanning Ion Conductive Microscopy
- 15.50-16.10 2M Strumenti – Scanning Thermal Microscopy, nanoTA

16.10-16.40 Coffee and Tea Break

- 5) 16.40-17.20 Vincenzo Palermo, Andrea Liscio (ISOF-CNR) – Kelvin Probe Force Microscopy: a quantitative investigation of the potential of charged (nano)structures
- 6) 17.20-18.00 Giovanni Valdrè, Daniele Moro (BiGeA-UniBo, AIC) – Advanced SPM applications to Mineralogy and Geo-Environmental Sciences

18.00 Concluding remarks

La partecipazione al workshop è gratuita ed è aperta a tutti (laureandi, dottorandi, ricercatori, tecnici, professionisti, ecc.)