



LENS - University of Florence



Researcher - Super-resolution / Single Molecule Biophysics

The Single Molecule Biophysics group at LENS (European Laboratory for Non-linear Spectroscopy), University of Florence, Italy (www.lens.unifi.it), is seeking a highly motivated and independent research scientist with proven academic track record and interest in interdisciplinary biophysics research, in view of the opening of a position at the Researcher level. The initial appointment is for one year with possibility of renewal.

The Single Molecule Biophysics group develops novel single molecule manipulation and imaging tools to address unsolved biological questions (Capitanio et al, Nature Methods, 2012; Gardini et al., Scientific Reports 2015; Capitanio et al. PNAS, 2006). The successful candidate will work on the development of single-molecule and super-resolution microscopy based on photoactivable and photo switchable chromophores. The last years have witnessed exciting advancements to bypass the limited spatial resolution inherent to standard optical microscopy. New generations of super-resolution microscopes, fluorophores and data analysis methods have allowed reaching resolution of few nanometers. We aim at developing novel illumination schemes to increase 3d spatial and temporal resolution in PALM / STORM / RESOLFT microscopies. Superresolution microscopy combined with 3d tracking of single molecules will be applied to the investigation of drug-uptake by bacteria with antimicrobial resistance and biofilms within the European project MetVBadBugs (https://www.euramet.org/research-innovation/search-research-projects/details/?eurametCtcp_project_show%5Bproject%5D=1402&eurametCtcp_project%5Bback%5D=831&cHash=fab7abc9f7ab601c6bc1d6dc255b4f2d)

Applications from scientists with a strong background from physics, optics, microscopy, and related disciplines will be considered. Previous experience in superresolution, fluorescence microscopy of single molecules and photo switchable dyes is advantageous. Previous experience with biological samples and prokaryotic or eukaryotic cell cultures is also desirable.

Applications and informal enquiries can be submitted to Dr. Marco Capitanio (capitanio@lens.unifi.it)

Interested applicants should submit:

- a short cover letter setting out your reasons for applying for the post and highlighting the particular skill and experience which you feel you would bring to the role.
- a CV, which should include research experience, publications, and names of referees.

Selected applicants will be contacted for an interview. References will only be requested for candidates shortlisted for interview. Please apply before July 10th 2016.