

CURRICULUM VITAE

PRESENT POSITION

- Scientist at the Istituto Italiano di Tecnologia, Centre for Life Nano- & Neuro-Science.

UNIVERSITY CAREER

- 1995 - *Laurea* in Physics at the University of Rome "Sapienza" (summa cum laude).
- 2001 - *Doctorat* in Material Science at the University of Paris "P. et M. Curie" (très honorable avec félicitations).

PROFESSIONAL CAREER

- 1996 – 1999 PhD student at the European Synchrotron Radiation Facility, Grenoble (France).
- 1999 – 2002 INFM researcher at the University of Camerino, Camerino (Italy).
- 2002 – 2007 Scientist at the European Synchrotron Radiation Facility, Grenoble (France).
- 2007 – 2008 Researcher at the Research Centre SOFT of the Italian National Research Council (CNR), Rome (Italy).
- 2008 – 2011 Research grant holder at the *Centro Studi e Ricerche e Museo Storico della Fisica "E. Fermi"*, Rome (Italy).
- 2011 to date Scientist at the Centre for Life Nano- & Neuro-Science of the Istituto Italiano di Tecnologia, Rome (Italy).

SCIENTIFIC ACTIVITY (**interests, expertise**)

My activity is oriented to fundamental research in condensed matter physics and biophysics, mainly devoted to the study of simple and complex matter by absorption and scattering of neutrons, visible and x-ray electromagnetic radiation, and by computational techniques.

My current research is focused on the study of the dynamical and static structural properties of liquids and aqueous solutions of simple and complex molecules, by means of experimental and computational techniques, developed and financed within national and international collaborations.

I coordinate the imaging core facility at the IIT Centre for Life Nano- & Neuro-Science, where state-of-the-art microscopy tools are combined with spectroscopic techniques. These include confocal multi-photon microscopies, stimulated μ Raman spectroscopies and infrared microscopy techniques.

I am in charge of the high resolution Brillouin and Raman laboratory at the Physics Department of the University of Rome "Sapienza", Italy.

Main experimental expertise and skills are as it follows:

- Visible and IR optical microscopies.
- x-ray absorption spectroscopy, elastic and inelastic x-ray scattering, quasi-elastic and inelastic neutron scattering techniques.
- Brillouin and Raman spectroscopies.
- Measurements under extreme high-pressure and high-temperature conditions.
- Molecular dynamics simulations.