

Lorenzo Mattera

Full professor

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Education and training

1973

Laurea in Fisica

110/110

Università di Genova - Genova - IT

1978

Ph. D. in Chemistry

University of Waterloo - Waterloo Ontario - CA

Academic experience

2000 - ONGOING

Full Professor

Università di Genova - Genova - IT

1988 - 2000

Associate Professor

Università di Genova - genova - IT

1978 - 1987

Researcher

Università di Genova - genova - IT

Language skills

English

Independent

French

Basic

Research interests

The scientific activity has been mainly devoted to the experimental study of structural, electronic and magnetic properties of surfaces by means of He diffraction, ion backscattering, angle resolved photoemission, deexcitation of spin-polarized metastable (He*) atoms (SPMDS), magneto-optical Kerr effect (MOKE) and spectroellipsometry.

Recent investigations were focused on:

- the structural and magnetic properties at the surface of ultrathin films (Fe, Co, Cr) grown on several substrates (Ag(100), Cu₃Au(001) and MgO(100)),
- the magnetic anisotropy of nanostructures grown by ion sputtering at grazing incidence of ultrathin films or on patterned surfaces of ionic crystals (LiF),
- the adsorption at surface of organic molecules of biological interest on noble metal substrates (Au, Ag and Cu) and graphite.

At present the scientific interest is mainly focused on:

- growth and characterization of graphene on metallic substrates
- fabrication of 2-dimensional arrays of nanoparticles realized by deposition onto self-organized ridge-valley structures at the LiF(110) surface by dewetting of nanowires
- development of a new TOF-SIMS instrumentation to be employed on the study of H₂ adsorption (dissociative and molecular) on nanostructured surfaces.