

Curriculum Vitae - Lamberto Duò

Full professor of experimental physics at the department of physics, Politecnico di Milano (Italy).

His main research activity concerns the study of the electronic, structural and magnetic properties of surfaces, interfaces and nanostructures by means of (spin-polarized) electron spectroscopies and microscopies. Moreover, he is involved in the field of linear and non-linear nano-optics and plasmonics with particular focus on near-field optical microscopies and polarization control of enhanced fields. More recently he started a research activity focused on the microscopic analysis of the solid/liquid interface during the electrochemical process studied by means of electrochemical atomic force- and scanning tunneling-microscopies.

Concerning his main research activity, he devoted much work to low dimensional oxides. From a magnetic point of view, late transition metal oxides display an antiferromagnetic character. This makes them interesting in view of the primary role played by the interface magnetic structure in systems where a ferromagnetic material interacts with an antiferromagnetic counterpart, as in the exchange bias effect [1,2]. On the other hand, metal—oxide interfaces play a fundamental role in determining the functional properties of artificial layered heterostructures, which are at the root of present and future technological applications. The steep compositional gradient established upon formation of metal—oxide heterostructures drives strong chemical interactions at the interface, making the metal—oxide boundary an interesting ground to play with, in order to offer a further degree of freedom for tuning the material properties [3].

He co-authored about 200 publications in peer reviewed journals, on top of many conference proceedings.

- [1] "Magnetic properties of interfaces and multilayers based on thin antiferromagnetic oxide films", M. Finazzi, L. Duò, F. Ciccacci, Surf. Sci. Rep. **64** (2009) 139.
- [2] "Magnetic properties of antiferromagnetic oxide materials: surfaces, interfaces and thin films", edited by L. Duò, M. Finazzi, F. Ciccacci (Wiley-VCH Verlag GmbH, Weinheim, Germany, 2010).
- [3] "Reactive metal—oxide interfaces: a microscopic view" A. Picone, M. Riva, A. Brambilla, A. Calloni, G. Bussetti, M. Finazzi, F. Ciccacci, L. Duò, Surf. Sci. Rep. **71** (2016) 32