

Post-doc Position

where: Theoretical Spectroscopy group, Laboratoire des Solides Irradies, Ecole Polytechnique, Palaiseau, France
when: starting from 1st September 2010, for a duration of 18 months (extension to 24 months possible)

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The purpose of the present post-doctoral work is to develop new theoretical schemes, approximations and methodologies to tackle the problem of an accurate and efficient description of electronic excitations in metal-oxide bulk systems as well as nano-structured systems (organic molecules, correlated systems, defects), in order to describe novel Photo-catalytic materials.

The work is integrated into a project involving experts in material science as well as computer science.

The crucial theoretical developments will be coupled with advances in methodology, algorithm, and efficient implementation in massively parallel codes in order to be applied to new frontier applications.

The ideal candidate has a strong background in theory development, especially in the field of Time Dependent Density Functional Theory and Green's Function Theory, and experience in applications on finite systems. Good knowledge of computer programming (fortran) as well as a predisposition for an integrated and collaborative way of working are required.