

## Postdoc position in Condensed Matter Theory CNRS and Université Pierre et Marie Curie, Paris, France

## Title: Quantum Monte Carlo (QMC) meets Density Functional Theory (DFT): applications to the electron gas and *ab initio* systems.

We offer a postdoc position (18 months position) at the Pierre et Marie Curie University in Paris, under the supervision of M. Casula and B. Bernu. The fellowship, funded by the Sorbonne Excellence Cluster "MATISSE" (MATerials, InterfaceS, Surfaces, Environment), should start in 2016, at the earliest convenience, and has to be filled by October 2016. The candidate will join the group "Théorie Quantique des Matériaux" at the Institut de Minéralogie, de Physique des Matériaux et de Cosmochimie (IMPMC), and will work in collaboration with the Laboratoire de Physique Théorique de la Matière Condensée (LPTMC).

The candidate will work in the field of the electron gas and correlated metals, such as the transition metal compounds. She/he will carry out first-principles and analytical calculations to understand the physical properties of these systems, by using advanced QMC methods. She/he will develop new numerical approaches to study them in the infinite size limit.

Ideally, the candidate should have a solid background in condensed matter physics and a good experience in electronic structure calculations. She/he should have worked with QMC methods and possibly should be a developer of existing QMC/DFT codes. Experience in methodological developments of first-principles approaches is highly appreciated.

Interested candidates can apply electronically (CV including full publication list and arrange for three reference letters) by sending an e-mail to: michele.casula@impmc.upmc.fr bernard.bernu@upmc.fr

A decision will be taken most likely by 30 June 2016.

For full publication list, see: http://www.researcherid.com/rid/B-4110-2016 http://www.researcherid.com/rid/B-9139-2016