

Postdoc: QUANTUM INFORMATION AND COMPUTATION

At Universidad Complutense de Madrid, Facultad de Físicas, QUITEMAD (Quantum Information Technologies Madrid)

Field(s): quantum mechanics

Application deadline: Oct 25 (Mon), 2010

Submitted: Sep 22, 2010

Contact: Inés Escribano

E-mail: quitemad.gestion@gmail.com

Phone: +34606300700

Address: Facultad de Físicas Depart. de Física Teórica I Universidad Complutense de Madrid Ciudad Universitaria 28040 Madrid

Job description: A fully funded Postdoc Contract in Quantum Information and Strongly Correlated Systems is available to work under the supervision of Prof. Miguel A. Martin-Delgado at the Departamento de Física Teórica I, Facultad de Ciencias Físicas, Universidad Complutense (Madrid, Spain). It covers a period of 2 years. The Contract is funded by the Research Grant QUITEMAD of Comunidad Autónoma de Madrid (CAM)

RESEARCH GROUP: Grupo de Información y Computación Cuánticas, Universidad Complutense Madrid (UCM), Spain. Webpage: <http://www.ucm.es/info/giccucm/index.php/GICC.html>. We offer an active and stimulating research environment, enhanced by strong international collaborations. The group holds financial support from a STREP European Grant, CAM grant from Madrid government (Research Consortium QUITEMAD = QUantum Information TEchnologies MADrid), in addition to the Spanish research grant from national projects from the Ministry of Science MICINN and others.

PhD TRAINING: the candidate is assumed to have a PhD degree (compulsory).

In any case, we also teach university courses of the Master on Fundamental

Physics(<http://www.ucm.es/centros/cont/descargas/documento13410.pdf>), which includes courses such as 'Quantum Information and Computation' taught by members of the group at the Facultad de Físicas de la Universidad Complutense de Madrid. This will be complemented with additional training courses, summer schools etc. from the research consortiums in which the group is involved.

LINES OF RESEARCH: generically, the focus is on Quantum Information and Computation and their relations with

Strongly Correlated Systems in Condensed Matter and Theoretical Physics. Among other more specific topics, they may include:

- Quantum Error Correction and Fault-Tolerant Quantum Computation
- Topological Quantum Computation
- Topological Orders in Condensed Matter: Anyon Physics, New Quantum Phases of Matter.
- Quantum simulations based on cold atoms in optical lattices, ion traps etc.
- Simulations of Strongly Correlated Systems
- Quantum Field Theory and Renormalization Group Methods
- and many other topics available in the arxiv by the members of the group over the years

About Madrid: <http://en.wikipedia.org/wiki/Madrid>

CONTRACT DETAILS

Type: A 2-year contract, starting in 2011

Employer: Universidad Complutense de Madrid

Salary: 26.000€ Yearly Gross Salary.

APPLICATIONS: should be addressed to: empleo@madrimasd.org

- Mark the application with reference: QUITEMAD / Postdoct 3/10.

- In addition to the before official address, interested applicants should also submit: A Curriculum Vitae, including full address, a contact phone number and e-mail address, reference letters (up to three), scanned copy of the academic transcripts (with marks), as well as a short statement of about 200 words or so explaining why they are interested in the position, to the Scientific Supervisor:

Prof. Miguel A. Martin-Delgado

Universidad Complutense de Madrid

mardel@miranda.fis.ucm.es,

miguel.mardel@gmail.com,

Telf.: +34 913944526