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# Research opportunities in condensed matter theory

## Grenoble, France

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### Postdoctoral position

Applications for a postdoctoral opening in condensed matter theory are requested. Preference will be given to candidates with expertise in the quantum aspects of condensed matter physics and research interests in the general area of superconductivity, mesoscopic physics, electron correlations, and disordered systems. The position is for two years. It is funded through an ANR project on the electrodynamics of disordered superconductors.

Grenoble offers a great research environment with a number of strong theoretical and experimental groups. The postdoctoral work will be guided by Manuel Houzet (<http://inac.cea.fr/Pisp/manuel.houzet/>) and Julia Meyer (<http://inac.cea.fr/Pisp/julia.meyer/>) at INAC/PHELIQS, Université Grenoble Alpes and CEA Grenoble. Collaborations with experimentalists and other theorists are expected and will be encouraged.

Applicants should send a CV including a publication list and a brief summary of research interests by email to [julia.meyer@univ-grenoble-alpes.fr](mailto:julia.meyer@univ-grenoble-alpes.fr). Selected preprints or reprints may also be included. Electronic submission in a single pdf file is strongly preferred. In addition, each applicant should arrange for two letters of recommendation to be sent.

For full consideration please apply before January 15, 2018 – though later applications are possible until the position is filled.

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### PhD position on "Quantum transport in voltage-biased topological Josephson junctions"

Applications for a PhD position in condensed matter theory are requested. The PhD work will be guided by Manuel Houzet (<http://inac.cea.fr/Pisp/manuel.houzet/>) and Julia Meyer (<http://inac.cea.fr/Pisp/julia.meyer/>) at INAC/PHELIQS, Université Grenoble Alpes and CEA Grenoble. It is funded through a joint ANR-NSF program on the transport properties of superconducting hybrid structures.

Topological phases of matter have attracted much interest in recent years. Topological superconductors are of particular interest because they may host Majorana bound states. Josephson junctions have been proposed as probes of topological superconductivity, and possible signatures of such Majorana bound states in topological Josephson junctions have indeed been observed. However, important aspects related to the effect of the environment on the properties of the junction are still not fully understood. The aim of the PhD work is to make progress in the understanding of quantum transport in voltage-biased topological Josephson junctions in the presence of an electromagnetic environment. More information can be found here: <http://inac.cea.fr/Pisp/julia.meyer/Sujet2018-Majorana.pdf>

Interested candidates should have a good basis in quantum mechanics, statistical physics, and condensed matter physics. Applicants should send a cover letter, a CV, as well as Master's and Bachelor's transcripts by email to [julia.meyer@univ-grenoble-alpes.fr](mailto:julia.meyer@univ-grenoble-alpes.fr). Electronic submission in a single pdf file is strongly preferred. In addition, each applicant should arrange for two letters of recommendation to be sent.

The search will be continued until the position is filled.

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