

## Postdoctoral Position in Experimental Condensed Matter Physics

Laboratoire de Physique des Solides  
Université Paris Saclay / CNRS, Orsay (France)

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### Spectroscopy of Quantum Spin Liquids in Frustrated Pyrochlore Magnets

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A 2-years postdoctoral position is offered within the Novel Electronic States group at the *Laboratoire de Physique des Solides* (Orsay, France), in the framework of a Junior Research Chair funded by the LabeX PALM for the project Quantum PyroMan, *Quantum Spin Liquid in Frustrated Pyrochlore Magnets*.

#### **Job description**

This Junior Chair research project focuses on the experimental investigation of new quantum states generated by frustration in pyrochlore compounds at very low temperature, pursuing our recent achievements in the field [see *Nature Commun.* **8**, 14810 (2017) and *Nat. Phys.* **12**, 746 (2016)].

The successful candidate will have the opportunity to carry out spectroscopic (NMR/ $\mu$ SR/neutron scattering) and thermodynamic (specific heat/susceptibility) measurements at low temperature on recently synthesized pyrochlores. He/she will benefit from state-of-the-art NMR setups available at the Orsay lab (fixed and sweep field 7-14T,  $^3\text{He}$ - $^4\text{He}$  dilution fridge cryostat) and from the low  $T$  platform facility of the LPS (PPMS and MPMS, 0.4--300K). Neutron scattering experiments will be performed at national (Orphée, ILL) and international (ISIS, SNS, etc.) sources. He/she will be the corner stone of a scientific collaboration on the campus of Paris-Saclay with the two others partners of this project, Sylvain Petit (LLB) and Claudia Decorse (ICMMO).

**Starting date no later than December 2017.** Funding is available for up to 2 years (1+1). The net salary will be determined by the experience of the candidate, in agreement with the pay scales of the CNRS (25k€-29k€/year), and comes with benefits (health insurance, transportation,...).

#### **Profile**

We are seeking a highly motivated researcher, with a strong scientific background in condensed matter physics. He/she should have demonstrated excellent experimental skills, and be experienced in either solid-state NMR or inelastic neutron scattering. Previous work in the field of quantum magnetism/strongly correlated electrons would also be appreciated. The candidate should hold a PhD and not have more than 2 years of postdoctoral experience at the date of his recruitment. A good working knowledge of English is mandatory.

#### **Applications**

Applicants should send a CV with two references, a complete list of publications and oral contributions, along with a brief cover letter to:

Dr. Edwin Kermarrec  
[edwin.kermarrec@u-psud.fr](mailto:edwin.kermarrec@u-psud.fr), Phone: +33 (0) 169155340