

Opportunity Title: Postdoctoral-Explore Emergent Quasi-Particles in Quantum Magnets

Opportunity Reference Code: ORNL12-10-QCMD

Organization Oak Ridge National Laboratory (ORNL)

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Description Postdoctoral Position to Explore Emergent Quasi-Particles in Quantum Magnets using the Spallation Neutron Source:

Strongly correlated quantum magnets can support emergent quasi-particles that are not associated with conventional symmetry breaking. Relevant spin-lattices include corner-linked tetrahedra with quantum spins and quasi-two-dimensional magnets near criticality. By linking a vigorous program of materials discovery and synthesis at the Institute for Quantum Matter at Johns Hopkins University with the novel instrumentation at the SNS and HFIR, the post doc will take part in a project to expose and characterize such emergent quasi-particles in strongly correlated condensed matter.


The position is situated at the Spallation Neutron Source in Oak Ridge Tennessee and will focus on inelastic neutron scattering experiments on novel frustrated and low dimensional magnets. The primary advisor will be Prof. Collin Broholm of the Johns Hopkins University Institute for Quantum Matter and Oak Ridge National Laboratory and there will be excellent opportunities for close collaboration with theorists, chemists, and instrumentation experts at IQM and ORNL to advance the scientific program.

Qualifications Ph. D. degree in Physics and a research background in experimental condensed matter physics and magnetism. Experience using neutron scattering is desirable as are strong analytical, computational, and communication skills. Compensation is competitive and will be based on the experience and accomplishments of the candidate.

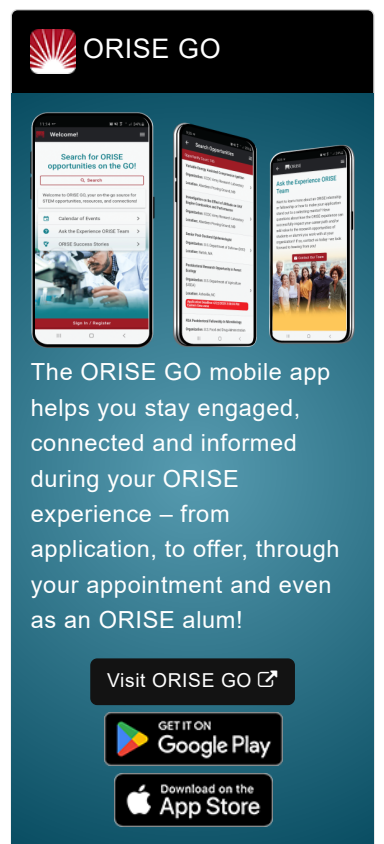
The candidate must be willing to work in a team environment on technically and scientifically challenging problems. Applications will be accepted until the position is filled.

Applications from underrepresented groups are strongly encouraged. Applications received by March 1 are guaranteed full review and we anticipate an appointment will be made by May 15,2012.

Eligibility Requirements


- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
 - **Physics** ([16](#) )


Affirmation I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.




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