



Ph.D. student in theoretical condensed matter physics/nanophysics

The condensed-matter group (<http://lnu.se/cmp>) in the Department of Physics and Electrical Engineering at Linnaeus University (www.lnu.se) invites applications for a Ph.D. student in theoretical condensed matter physics. The successful applicant will work in a very active research environment, with a long tradition of national and international collaborations in front edge areas of condensed matter physics/nanophysics, such as nanomagnetism and nanospintronics, molecular electronics, quantum computation, strongly correlated electron systems and topological phases of matter. The department of physics and electrical engineering at Linnaeus University has about 25 employees. Linnaeus University has an international profile, and several programs and courses in physics are taught in English both at the undergraduate and at the graduate level.

Job description

The research area of the Ph.D. position deals with theoretical studies of Dirac's materials such as topological insulators and graphene. Possible projects include: spintronics at the atomic scale in magnetically-doped topological insulator surfaces; electronic, thermal and spin transport in topological insulator nanostructures such as nanowires and nanoribbons; quantum Hall effects; time dependent spin dynamics. The projects will involve both analytical investigations of quantum mechanical models, and the development and the use of advanced computational methods (based both on atomistic tight-binding models and first-principles approaches) to address realistic properties of these quantum materials. The research will be carried out partly in close collaboration with experimental groups investigating the physical systems studied theoretically.

The application

The application should be submitted electronically using the link found at <https://lnu.se/en/meet-linnaeus-university/work-at-the-university/> -- Ph.D. Student in theoretical condensed matter physics/nanophysics, no later than the **27 August 2016**

For more information, please contact

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