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PhD Studentships in Advanced Electronic Transport Theory, Ireland & Saudi Arabia

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Three PhD research positions are available immediately, at the Center for Research on Adaptive Nanostructures and Nanodevices ([Trinity College Dublin](http://www.crann.tcd.ie) IRELAND) (www.crann.tcd.ie) and at the [King Abdullah University of Science and Technology](http://www.kaust.edu.sa) (www.kaust.edu.sa). The positions will be respectively in the “[Computational Spintronics](http://www.spincomp.eu) Group” (www.spincomp.eu) headed by Prof. Stefano Sanvito at CRANN and in the “[electronic](http://www.kaust.edu.sa/academics/faculty/schwingenschloegl.html) structure theory” group (www.kaust.edu.sa/academics/faculty/schwingenschloegl.html) headed by Prof. Udo Schwingenschlögl at KAUST.

The successful candidate(s) will participate in the [development](#) of density functional theory based quantum transport algorithms. In particular we aim at tackling problems related to large-scale simulations and many body effects and at investigating how the electrostatic environment affects the transport properties of nanodevices in wet conditions. The projects will have a code development component and will involve simulations of devices with potential technological applications.

All the positions are within a CRANN-KAUST collaboration. The successful candidates will be located either at the TCD of the KAUST campus, but frequent [exchange](#) and training periods are planned during the duration of the project. A strong overall motivation and a keen interest in theory and computation, as well as in interdisciplinary work between physics, [materials](#) science and biology are required. Experience with the UNIX/Linux environment and with programming in either Fortran or C/C++ would be an advantage. Large computational infrastructure will be available to the project both in Ireland (www.tchpc.tcd.ie and www.ichec.ie) and at KAUST. In particular the use of the KAUST Shaheen supercomputer (<http://www.kaust.edu.sa/research/labs/supercomputing.html>) is planned.

Post Title: PhD Studentship in Advanced Electronic Transport Theory (3 positions)

Post Status: Three Year contract

Department/Faculty: Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) and King Abdullah University of Science and [Technology](#) (KAUST)

Location: School of Physics, Trinity College Dublin or King Abdullah University of Science and Technology, [Saudi Arabia](#)

Reports to: Professor Stefano Sanvito at CRANN or Professor Udo Schwingenschlögl at KAUST.

Closing date: 12 noon on 17th December 2010

Salary Range: CRANN salary – €16,200 per annum plus Fees /KAUST salary – 25,000 US dollars per annum plus Fees, accommodation and Health Insurance package

For further information contact Prof. Sanvito at sanvitos@tcd.ie and Prof. Schwingenschlögl at udo.schwingenschloegl@kaust.edu.sa

Applications must include a letter of application detailing how you meet the selection criteria for the post, together with a Curriculum vitae and the name and contact details of referees (e-mail address if possible) and a short statement of research interests.

Please send applications via e-mail with Subject Line “PhD Studentship (Full-time)” to negros@tcd.ie, Stefania Negro, School of Physics, Trinity College Dublin, Dublin 2, IRELAND. WE WELCOME APPLICATIONS BY EMAIL

For more information please visit our website: <http://scholarshipsbank.com/phd-studentships-in-advanced-electronic-transport-theory-ireland-saudi-arabia/>

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