University *of Ljubljana*

Early stage researcher position in the Area of Nanoscopic Theoretical Physics

in **Institute of Molecular Physics, Polish Academy of Sciences, Poznań, Poland**
and
in **Faculty of Mathematics and Physics, University of Ljubljana, Slovenia**

Within **Marie Curie Initial Training Network - Nanoelectronics: Concepts, Theory and Modelling (NanoCTM)** we seek a highly-motivated Early Stage Researcher (ESR) to join an international research programme focusing on the theory of molecular-scale electronics and quantum transport in nanostructures. The candidate should have some background in theoretical condensed matter physics. The PhD candidate will become familiar with theoretical numerical and analytical methods.

Research activities will be oriented towards better understanding of strongly interacting coupled quantum dots in regimes hitherto unreachable. Recent progress and understanding of electron transport within existed theoretical methods promises the extend to multi-dot systems allowing to describe the cross-over between the low and high temperature limits, for example, electric current and its correlation functions will be calculated with methods developed and extended in Poznan, based on non-equilibrium Green functions.

The student will have opportunity to participate in tutorial courses (on Nanomolecular science, Molecular-electronics simulation techniques, Graphene, Noise, Qubit manipulation, Technology transfer and project management) and schools organized within the network NanoCTM, as well as courses in the host institutions.

The fellowship is for young researcher *(in the first 4 years of her/his research career, starting at the date of obtaining the Master degree)* and **is funded for 1 up to 3 years with a stipend in the range 2.416 – 2.630 Euro per month.**

The position is available to start any time before October 1st 2010.

The mobility rule of the project requires that **the researcher shall not be Polish or Slovenian citizenship.**

Please include a CV with your enquiry.

Further information:

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