



CONDENSED MATTER THEORY POSITIONS WITH E. TOSATTI at SISSA and at ICTP, Trieste, ITALY

SISSA and ICTP Trieste have each a Condensed Matter Theory postdoctoral openings in the area of theory modeling and simulation of nanofriction, in the group of E. Tosatti, <https://sites.google.com/site/tosattierio/>. The group just obtained an ERC Advanced Research Grant in this field. For some recent work see: <http://arxiv.org/abs/1112.3234v3> (Rev. Mod. Phys. Colloquium in press); Vanossi *et al.*, PNAS 109, 16429 (2012); Pellegrini *et al.*, Phys. Rev. Lett. 105, 146103 (2010).

- a) *theory and simulation of nanofriction and dissipation: phononic, electronic and magnetic.*** (SISSA, mostly modeling and classical simulation)
- b) *theory and simulation of nanofriction and dissipation: phononic, electronic and magnetic.*** (ICTP, mostly modeling and ab initio simulation)

The ideal candidate has a doctoral degree in physics or equivalent with a good background, deep understanding and strong research motivation in **a)** molecular dynamics simulations, applied non-equilibrium statistical mechanics, modeling; or **b)** electronic structure, ab initio dynamical simulation, modeling. Other collaborators include : a) A. Vanossi, G.E. Santoro, N. Manini, F. Pellegrini and R. Capozza; b) S. Scandolo. The projects will involve interactions with strong experimental groups. The group encourages team work, nurtures a vibrant research atmosphere, and has resources to support participation to conferences. All questions concerning these positions to be addressed to nanofriction@sissa.it.

The appointment will be for two years (in principle renewable for a third) and are available in the third quarter of 2013. Interested candidates should informally arrange for a CV with a list of publications, and at least two reference letters to reach nanofriction@sissa.it. (Formal paperwork to follow later according to official rules.)

SISSA (www.sissa.it) and **ICTP** (www.ictp.it) are part of the wider Trieste scientific campus, which includes the University of Trieste, the Synchrotron Facility Elettra and Free Electron Laser Fermi, the CNR-IOM Experimental TASC Laboratory, and the CNR-IOM Democritos National Simulation Laboratory-- the latter based on SISSA's premises. All activities are conducted in English, no knowledge of Italian is required. These institutions may offer to eligible subjects help with children, with a subsidized kindergarden and other facilities.