



We cordially invite you to a lecture

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STM studies of FeSe single crystals

Abstract: In spite of its simple crystal structure, the electronic properties of the iron-based superconductor FeSe ($T_c \sim 9$ K) are rich and attractive. Superconductivity in FeSe takes place in a so-called nematic phase that is associated with orbital ordering. Another interesting aspect is that Fermi wave length is as long as the coherence length therefore, placing FeSe most likely in the BCS-BEC crossover regime. These features should result in non-trivial electronic states around the local defects such as vortices and impurities. We have performed low temperature STM/STS experiments on FeSe to investigate its electronic structures. Multiband superconductivity aspects, symmetry of the order parameter, role of disorder, vortex matter and chemical substitution effects on the band structure of this system will be discussed.

The lecture will take place on 4.7.2018 at 10.00 in IEE SAS (Rm.101).