TUNNELING CURRENT INTO THE VORTEX LATTICE STATES AT QUANTIZING MAGNETIC FIELD

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The local tunneling current between the normal metal and s-wave and p-wave superconductors in a quantizing magnetic field is investigated. The local density of quasiparticle states and the differential conductance is calculated both as a function of bias voltage for various fixed distances of the STM tip from the vortex line and for varying position of the tip at a stable voltage. The tunneling conductance is angulary modulated and exhibits a symmetry of the vortex lattice. This anisotropy is quite distinctive and should be checked by STM experiment. The space variation of this conductance fully reflects the variation of the order parameter.

9.7 cm

13.4 cm

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