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Influence of vortex quantum fluctuations on the electronic spectra of superconductors LORENZ BARTOSCH, Harvard University, SUBIR SACHDEV, Harvard University — We compute the influence of the zero point motion of vortices on the electronic quasiparticle spectra of two-dimensional s- and d-wave superconductors. In the core region the zero point motion of the vortices leads to a shift of spectral weight away from the Fermi level and thereby reduces the zero bias conductance peak. We discuss the relationship of our results to STM measurements on the cuprates and the observed 7 meV LDOS peaks near the core of vortices.

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