

THE RING OF ELECTRONIC DENSITY
IN QUANTUM DOTS WITH TWO ELECTRONS
IN EXTERNAL MAGNETIC FIELDS

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The ground-state energies, interelectron spacings, and distributions of electron density in a quantum dot containing two electrons are calculated as the functions of an applied magnetic field. It is shown that, at high field strengths, the electron density tends to concentrate in a narrow ring, whose radius is determined by the relative action of the Coulomb repulsive and confining potentials on the electrons and can be comparable with the effective zero-field dot size.