SU(4) versus SU(2) Kondo effect in double quantum dot

We consider the spin and orbital Kondo effect in a parallel arrangement of two strongly electrostatically coupled quantum dots. Increasing the exchange of electrons between the dots through the attached leads, induces a transition between the SU(4) spin- and orbital Kondo effect and SU(2) spin Kondo effect. Being the same for the SU(4) and SU(2) symmetry points, the Kondo temperature drops slightly in the intermediate regime. Experimentally, two kinds of Kondo effects can be discriminated by the sensitivity to the suppression of the spin Kondo effect by the Zeeman field. The dependence of the Kondo temperature on the Zeeman field and on the strength of electronic exchange mediated by the leads is analyzed in detail.

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*Einführung: Prof. Schön

Die Vorträge finden um 17 Uhr c.t. im Kleinen Hörsaal B statt.