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Valley-Kondo Effect in Transport Through a Silicon Quantum Dot SHIUEYUAN SHIAU, Department of Physics. UW, Madison — The Anderson model is applied to transport through a silicon quantum dot with infinite Coulomb interaction U with the valley degeneracy taken into account. At zero temperature, we study the conductance in the Kondo regime as a function of applied magnetic field, using the variational method developed by Gunnarsson and Schönhammer. The conductance peaks show a characteristic evolution due to the interplay of Zeeman splitting and valley splitting.

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