

Abstract Submitted
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The Kondo Effect and Rashba Spin-Orbit Coupling JUSTIN MALECKI, University of British Columbia — We present the results of a study of the influence that weak Rashba spin-orbit coupling has on the Kondo effect induced by a magnetic impurity in a two dimensional electronic system. It is shown that the Kondo effect is robust against such coupling of momentum and spin, despite the fact that the spin of the conduction electrons is no longer a conserved quantity. A proposal is made for how the spin-orbit coupling may change the value of the Kondo temperature T_K in such systems. Applications to semiconductor quantum dots and magnetic atoms on metallic surfaces are discussed.

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