

Abstract Submitted
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Quantum Critical Behaviour Near the Kondo Breakdown Fixed Point¹ INDRANIL PAUL, SPhT, CEA Saclay, L'Orme des Merisiers, 91191 Gif-sur-Yvette, France and Materials Science Division, Argonne National Lab, Argonne, IL-60439, CATHERINE PÉPIN, SPhT, CEA Saclay, MIKE R. NORMAN, Materials Science Division, Argonne National Lab — We study the Kondo-Heisenberg model using a fermionic representation for the localized spins. In this model, the mean field Kondo hybridization at $T = 0$ can be continuously tuned to zero as a function of the exchange interactions. We calculate the fluctuations of the hybridization and its associated gauge potential at the one loop level, and their contribution to the specific heat and spin susceptibility, near the quantum critical point.

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