

Abstract Submitted
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Pressure Dependence of the Field-tuned Quantum Critical Point in CeCoIn₅ FILIP RONNING, CIGDEM CAPAN, ROMAN MOVSHOVICH, JOE D. THOMPSON, ERIC D. BAUER, JOHN L. SARRAO, Los Alamos National Lab — Non-Fermi liquid behavior, as characterized by a T-linear resistivity and a T log(T) behavior in specific heat, is observed in zero field in the heavy fermion system CeCoIn₅. The application of magnetic field has revealed a field tuned quantum critical point surprisingly coincident with the superconducting H_{c2}. Neither field orientation nor Sn doping has been able to separate H_{c2} from the quantum critical field implying that the two are more than accidentally linked together. We further investigate the nature of the quantum critical point with resistivity measurements under pressure and magnetic field simultaneously.

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