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Evidence for magnetic field-tuned quantum criticality below H_{c2} in $CeCoIn_5$ J. PAGLIONE, Center for Nanophysics and Advanced Materials, University of Maryland, J.-P. REID, Département de physique, Université de Sherbrooke, M.A. TANATAR, L. TAILLEFER, Département de physique, Université de Sherbrooke, C. PETROVIC, Condensed Matter Physics, Brookhaven National Laboratory — The existence of a magnetic field-tuned quantum critical point coinciding with the upper critical field for superconductivity in the heavy-fermion superconductor $CeCoIn_5$ has remained a puzzling fact, and has proven difficult to study due to the onset of superconductivity. Here we present low temperature thermal conductivity measurements which probe the approach to the quantum critical point in $CeCoIn_5$ as a function of field from within the superconducting state, revealing new evidence for field- tuned quantum criticality.

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