

Abstract Submitted  
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**Magnetic field tuning of the low temperature state in YbNiSi<sub>3</sub>: magnetic field induced quantum criticality**<sup>1</sup> MARCOS A. AVILA, TOSHIRO TAKABATAKE, Dept. of Quantum Matter, ADSM, Hiroshima University, Japan, SERGEY L. BUD'KO, PAUL C. CANFIELD, Ames Laboratory and Dept. of Physics and Astronomy, Iowa State University, USA — We present detailed, low temperature, magnetoresistance and specific heat data from measurements on YbNiSi<sub>3</sub> in magnetic field applied along the easy magnetic axis,  $H\parallel b$ . Initially the antiferromagnetic ground state changes into a field-induced metamagnetic phase at  $\sim 16$  kOe ( $T \rightarrow 0$ ). On further increase of magnetic field, magnetic order is suppressed to below 0.4 K at  $\sim 85$  kOe. The functional behavior of the resistivity and specific heat is discussed in comparison with that of the few other stoichiometric, heavy fermion compounds with established field-induced quantum criticality.

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