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**Field induced QCP in Yb-doped CeCoIn<sub>5</sub>**<sup>1</sup> Y.P. SINGH, T. HU, H. XIAO<sup>2</sup>, M. DZERO, C.C. ALMASAN, Kent State University, L. SHU, M.B. MAPLE, University of California San Diego — We performed magnetoresistance and Hall effect measurements on Yb-doped CeCoIn<sub>5</sub>. The longitudinal resistivity data measured in 14 T show that the onset of coherence in the dilute Kondo lattice remains robust with respect to Yb concentration. In addition, we find that the superconducting transition temperature is weakly suppressed with doping ( $x \leq 0.2$ ). Our analysis of the magnetoresistance data allowed us to identify the magnetic field induced quantum critical point and its evolution upon doping. At high Yb concentrations, our Hall effect data point to a possible valence transition of Yb ions. At small doping, our results provide an insight into the nature of the interplay between quantum criticality, magnetism, and unconventional superconductivity, while the behavior of this system at high doping can be characterized by a subtle interplay between Kondo screening on Ce sites and strong valence fluctuations on Yb sites.

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