

## SPECIFIC HEAT OF NON-FERMI LIQUID AND HEAVY FERMION SUPERCONDUCTING SYSTEMS

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### Introduction

We have measured  $UPt_3$  and  $UCu_{5-x}Ni_x$  near the QCP, and doped and annealed samples of  $CePt_3Si$ .

### Experimental

We used SCM1 at NHMFL.

### Results and Discussion

The temperature dependence of the resistivity changes from  $\alpha=2$  below the critical magnetic field for suppressing antiferromagnetism in  $U(Pt_{0.94}Pd_{0.06})_3$  to a monotonic decrease with increasing field above the critical field.

The resistivity of  $UCu_{5-x}Ni_x$  samples near the QCP at low temperatures presents several interesting aspects which are still under investigation.

The low temperature specific heat of doped samples of  $CePt_3Si$  display evidence of strong electron phonon coupling.

### Conclusions

The capability of measuring low temperature specific heat down to 0.06 K and in fields to 20 T at NHMFL, using the capability created by Takano and Andraka funded by an IHRP, is important for understanding several systems of interest.

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