Specific heat in high magnetic field - Application to cuprates

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Résumé

We have developed a new technique for measuring the specific heat in very high magnetic fields (35tesla) down to He3 temperature (0.3K). This technique enables high-resolution measurements, typically DC/C_{-} °10-4, combined with excellent accuracy DC/C_{-} °a few%. These instrumental implementations is a powerful tool to study field dependent exotic phenomena;

I will illustrate these potentialities with new results in the quantum limit of graphite and with the observation of Lifshitz transitions in UCoGe. Finally, a special emphasis will be given on the magnetic phase diagram and quantum criticality of cuprates.

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