

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Fermi-surface transformation across the pseudogap critical point of the cuprate superconductor Nd-LSCO C. COLLIGNON, S. BADOUX, A.S. AFSHAR, B. MICHON, F. LALIBERTE, O. CYR-CHOINIERE, N. DOIRON-LEYRAUD, L. TAILLEFER, University of Sherbrooke, Sherbrooke, Canada, J.S. ZHOU, University of Texas, Austin, USA, S. LICCIARDELLO, S. WIEDMANN, HFML, Nijmegen, Netherlands — We report high-field measurements of the electrical resistivity and Hall coefficient of the cuprate Nd-LSCO in magnetic fields up to $H = 37.5$ T, large enough to access the normal state at $T = 0$, for closely spaced dopings across the pseudogap critical point at $p^* = 0.235$ [1]. Below p^* , both coefficients exhibit an upturn at low temperature, which gets more pronounced with decreasing p . Taken together, these upturns show that the normal-state carrier density n at $T = 0$ drops upon entering the pseudogap phase, from $n = 1 + p$ above p^* to $n = p$ below. Our data are in quantitative agreement with recent high-field data on YBCO [2] and LSCO [3], showing that a drop in carrier density from $1 + p$ to p is a universal signature of the pseudogap transition at $T = 0$.

[1] C. Collignon *et al.*, arXiv:1607.05693 (2016).

[2] S. Badoux *et al.*, Nature **531**, 210 (2016).

[3] F. Laliberte *et al.*, arXiv:1606.04491 (2016).

Clement Collignon
University of Sherbrooke, Sherbrooke, Canada

Date submitted: 10 Nov 2016

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