Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Fermi-surface reconstruction under pressure in the cuprate superconductors YBCO and Nd-LSCO SOPHIE DUFOUR-BEAUSÉJOUR, OLIVIER CYR-CHOINIÈRE, GAËL GRISSONNANCHE, MARCIN MATUSIAK, FAZEL FALLAH TAFTI, ELENA HASSINGER, SAMUEL RENÉ DE COTRET, NICOLAS DOIRON-LEYRAUD, LOUIS TAILLEFER, Université de Sherbrooke, BRAD RAMSHAW, RUIXING LIANG, DOUG BONN, WALTER HARDY, University of British Columbia, JIANSHI ZHOU, JOHN GOODENOUGH, University of Texas at Austin, DAVID GRAF, National High Magnetic Field Laboratory, Tallahassee — It is well established by now that the Fermi surface of hole-doped cuprates such as YBCO [1], Eu-LSCO [2], Nd-LSCO [3] and Hg1201 [4] undergoes a reconstruction caused by the emergence of charge order at low temperature. Here we show how the process of Fermi-surface reconstruction evolves as a function of applied hydrostatic pressure in both YBCO and Nd-LSCO, via measurements of the resistivity and Hall coefficient as a function of temperature and magnetic field.

[1] D. LeBoeuf *et al.*, Physical Review B **83**, 054506 (2011).
[2] F. Laliberté *et al.*, Nature Communications **2**, 432 (2011).
[3] R. Daou *et al.*, Nature Physics **5**, 31 (2009).
[4] N. Doiron-Leyraud *et al.*, Physical Review X **3**, 021019 (2013).

Sophie Dufour-Beauséjour
Université de Sherbrooke

Date submitted: 15 Nov 2013 Electronic form version 1.4