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Effect of pressure on the Fermi-surface reconstruction in the cuprate superconductor $YBa_2Cu_3O_y$ SVEN BADOUX, OLIVIER CYR-CHOINIÈRE, SOPHIE DUFOUR-BEAUSÉJOUR, NICOLAS DOIRON-LEYRAUD, LOUIS TAILLEFER, University of Sherbrooke, Sherbrooke, Canada, DAVID VIGNOLLES, MARC NARDONE, CYRIL PROUST, LNCMI, Toulouse, France, DOUGLAS BONN, WALTER HARDY, RUIXING LIANG, University of British Columbia, Vancouver, Canada — Quantum oscillations and transport measurements have shown that the Fermi surface of cuprate superconductors undergoes a reconstruction near optimal doping [1-5]. It has recently become clear that charge-density-wave order [6-8] causes this Fermi-surface reconstruction [9,10]. Here we report transport measurements in high magnetic fields under pressure that shed light on the pressure dependence of Fermi-surface reconstruction in $YBa_2Cu_3O_y$ at various dopings. [1] N. Doiron-Leyraud et al., Nature 447, 565 (2007). [2] D. LeBoeuf et al., Nature 450, 533 (2007). [3] B. Vignolle et al., Nature 455, 952 (2008). [4] D. LeBoeuf et al., Physical Review B 83, 054506 (2011). [5] N. Doiron-Leyraud et al., Physical Review X 3, 021019 (2013). [6] T. Wu et al., Nature 477, 191 (2011). [7] G. Ghiringhelli et al., Science 337, 821 (2012). [8] J. Chang et al., Nature Physics 8, 871 (2012). [9] F. Laliberté et al., Nature Communications 2, 432 (2011). [10] G. Grissonnanche et al., Nature Communications 5, 3280 (2014).

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