## Abstract Submitted for the MAR07 Meeting of The American Physical Society

Systematic ARPES study on high Na-level  $Na_xCoO_2$  (x>0.75) Y.M. XU, Z.H. PAN, P. RICHARD, Boston College, R. JIN, B.C. SALES, D. MANDRUS, Oak Ridge National Laboratory, F.C. CHOU, Massachusetts Institute of Technology, Z. WANG, H. DING, Boston College — The phase diagram of the cobaltae  $Na_xCoO_2$ , with varying Na concentration x, is very rich and complicated. At the high-doping regime (x>0.75), the system was found to be more correlated, with a spin-density-wave state emerging at low temperatures. A previous ARPES study has observed a usually large Fermi surface which apparently violates the Luttinger theorem at x = 0.8. We will report our recent ARPES results of the high Na-level  $Na_xCoO_2$  (x>0.75) samples.

Y.M. Xu Boston College

Date submitted: 16 Nov 2006 Electronic form version 1.4