

Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

Impurity Influences on the Stripe Pattern CHUNG-PIN CHOU,
TING-KUO LEE, Institute of Physics, Academia Sinica — Many experiments in
high-Tc cuprates have clearly indicated the stripe order for decades ago. Recently
the cluster glasses with randomly oriented domains of stripelike patterns have been
observed by scanning tunneling spectroscopy[1]. However, it is still unclear whether
or not the charge pattern is intimately related to disorder in real materials. Using a
variational Monte-Carlo approach with a recently proposed cluster-glass stripe wave
function in the t - t' - t'' - J model[2], we will report the relation between the stripe con-
figurations and impurities. [1]Y. Kohsaka, et al., Science 315, 1380 (2007). [2]C.-P.
Chou, et al., Phys. Rev. B 78, 134530 (2008).

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Date submitted: 18 Nov 2009

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