Mixed State of a Striped d-Wave Superconductor MIRSAEED ZELLI, CATHERINE KALLIN, McMaster University — A model of anti-phase modulated d-wave superconductor has been proposed to describe the decoupling between Cu-O planes in 1/8 doped $La_{2-x}Ba_xCuO_4$. Unlike a uniform d-wave superconductor, this model exhibits an extended Fermi surface. We study the possibility of the existence of quantum oscillations in the mixed state of this model and compare it to the case of a uniform d-wave superconductor. Within Bogoliubov-deGennes theory, employing the Franz-Tesanovic transformation, we find a periodic structure of low-energy density of states with a frequency that is linear in $1/B$.

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