Giant Nernst effect in d-wave density waves

KAZUMI MAKI, Department of Physics and Astronomy, University of Southern California, Los Angeles CA 90089-0484, USA, BALAIZS DORA, ATTILA VIROSZTEK, ANDRAS VANYOLOS, Department of Physics, Budapest University of Technology and Economics, H-1521 Budapest, Hungary — Recently we have shown that the d-wave density wave exhibits a large negative Nernst effect in the presence of a magnetic field perpendicular to the conducting plane. Such Nernst effects have been seen in pseudogap phase in high Tc cuprate superconductors LSCO,YBCO,Bi2212 [1] and more recently in the pseudogap phase in heavy fermion superconductor CeCoIn5 [2]. In particular we can describe the field dependence of the Nernst coefficient of CeCoIn5 very consistently in terms of d-wave density wave. We shall report our analysis of other properties of the pseudogap phase in high Tc cuprates in terms of d-DW. [1] Y. Wan et al, Phys. Rev. Lett. 88,257003(2002) [2] R. Bel et al, Phys. Rev. Lett. 92,217002(2004)