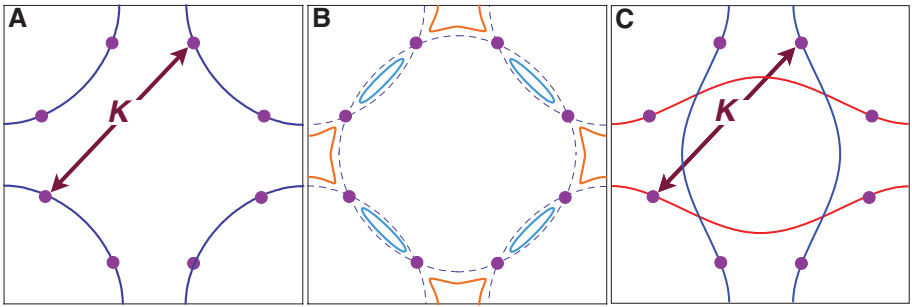

Fig. 1. (**A**) Fermi surface of the Fermi liquid phase of a single band model on the square lattice with unit lattice spacing. The "hot spots" are denoted by the filled circles. (**B**) The reconstructed Fermi surface in the metal with SDW order. The dashed lines show the Fermi surface in the metal without SDW order, and its translation by **K**. Gaps have opened at the hot spots, leading to small "pocket" Fermi surfaces. (**C**) A deformed Fermi surface of the metal without SDW order, in which the vicinities of the hot spots are unchanged from (A). The horizontal and vertical Fermi surfaces now belong to separate electronic bands.

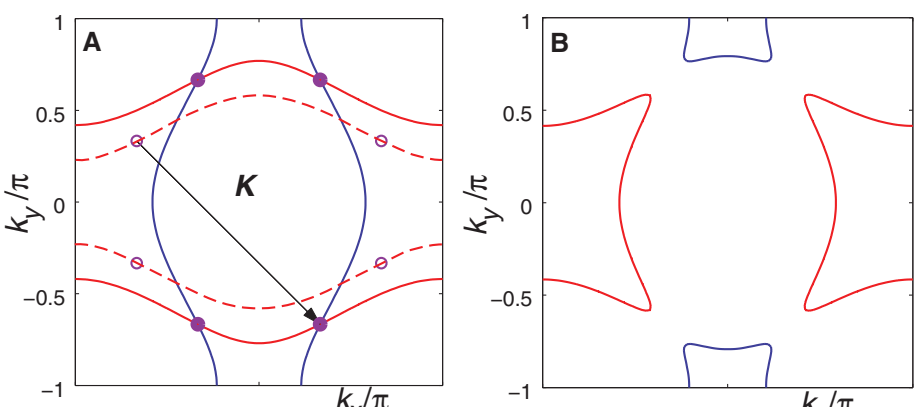

Fig. 2. (**A**) Fermi surfaces (solid lines) of L_F for free $\psi_{x,y}$ fermions with the parameters listed in the text. The dashed lines show the portion of the Fermi surface in Fig. 1C that was shifted by **K** to obtain the ψ_y Fermi surface. The hot spots are now at the intersections of the Fermi surfaces. (**B**) Mean-field $\psi_{x,y}$ Fermi surfaces with SDW order $|\langle\vec{\phi}\rangle| = 0.25$.