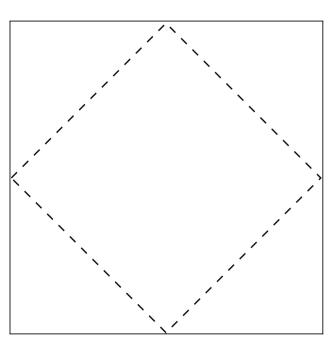
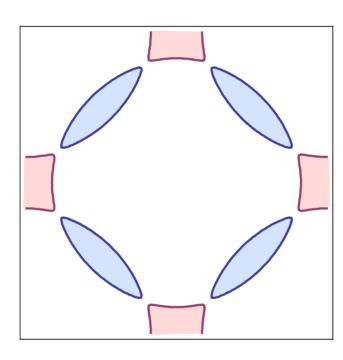
Square lattice Hubbard model with no doping

$$\begin{array}{c} \Delta \neq 0 \\ \text{and large} \end{array}$$



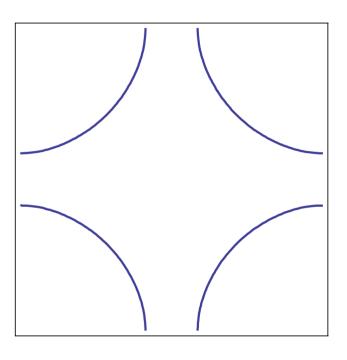
Insulator

$$\Delta \neq 0$$
 and small



Metal with electron and hole pockets

$$\Delta = 0$$



Metal with large Fermi surface