

- Fermion ψ , transforming as a gauge SU(2) fundamental, with dispersion $\varepsilon_{\mathbf{k}}$ from the band structure, at a non-zero chemical potential: has a “large” Fermi surface.
- A SU(2) gauge boson.
- A real Higgs field, H , transforming as a gauge SU(2) adjoint, carrying lattice momentum (π, π) . Condensation of the Higgs breaks $\text{SU}(2) \rightarrow \text{U}(1)$, and transforms the large Fermi surface to a small Fermi surface.