

$$T = \int dx dy \left[|\partial_i \Phi|^2 + A_i^2 |\Phi|^2 + i A_i (\Phi^* \partial_i \Phi - \Phi \partial_i \Phi^*) + \frac{1}{4} (\partial_i A_j - \partial_j A_i)^2 + \frac{1}{2} (\partial_i A_i)^2 + V(\Phi) \right]$$