

Let ε_α be the eigenvalues of the matrix t_{ij}/\sqrt{N} . The fermions will occupy the lowest NQ eigenvalues, upto the Fermi energy E_F . The single-particle density of states is

$$\rho(\omega) = (1/N) \sum_\alpha \delta(\omega - \varepsilon_\alpha), \text{ and } \rho_0 \equiv \rho(\omega = 0).$$