Ground state construction of Bilayer Graphene

Ian Jauslin

joint with Alessandro Giuliani

Monolayer graphene

• 2D crystal of carbon atoms on a honeycomb lattice.
Monolayer graphene

- Scanning Tunneling Microscopy [Deshpande et al, 2009]
Bilayer graphene
Bilayer graphene
Non-interacting Hamiltonian
Non-interacting Hamiltonian
Non-interacting Hamiltonian

- $|k| \gg \epsilon$
Non-interacting Hamiltonian

- $\epsilon^2 \ll |k| \ll \epsilon$
Non-interacting Hamiltonian

\[ |k| \ll \epsilon^2 \]