



Band
insulator (filled
band)



The diagram shows a horizontal line representing a band, with three gray square sites connected by it. Each site contains two white arrows: one pointing up and one pointing down, representing a pair of electrons with opposite spins. This indicates that the band is completely filled.

Mott
insulator (half-filled
band)



The diagram shows a horizontal line representing a band, with three gray square sites connected by it. Each site contains a single white arrow pointing either up or down, representing a single electron. The arrows alternate in direction (down, up, down), indicating that the band is half-filled.