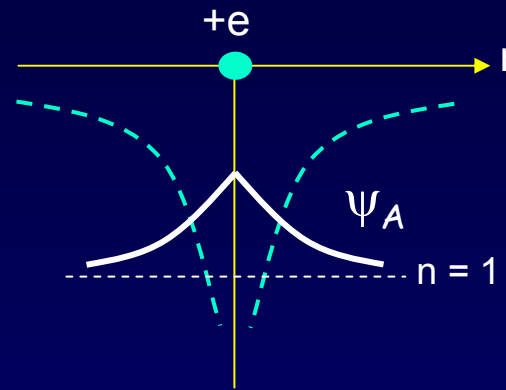


Electron states in a crystal (1)

Again start with a simple atomic state:



Bring N atoms together to form a 1-d crystal (a periodic lattice).

N atomic states \rightarrow N crystal states.
What do these crystal states look like?

Like molecular bonding, the total wave function is (approximately) just a superposition of 1-atom orbitals.