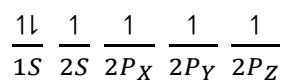
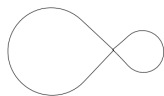
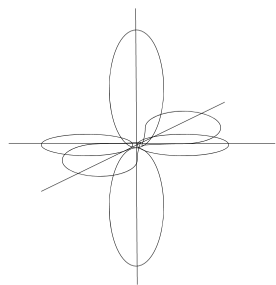


C orbitals



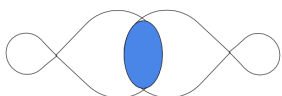
These are $2sp^3$ hybridized orbitals



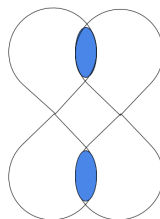
Bonding

Sigma bonds are stronger than pi bonds

σ



π



Methane forms a tetrahedral shape

