

Electric charge, Electrostatic Force & Electromagnetic Force



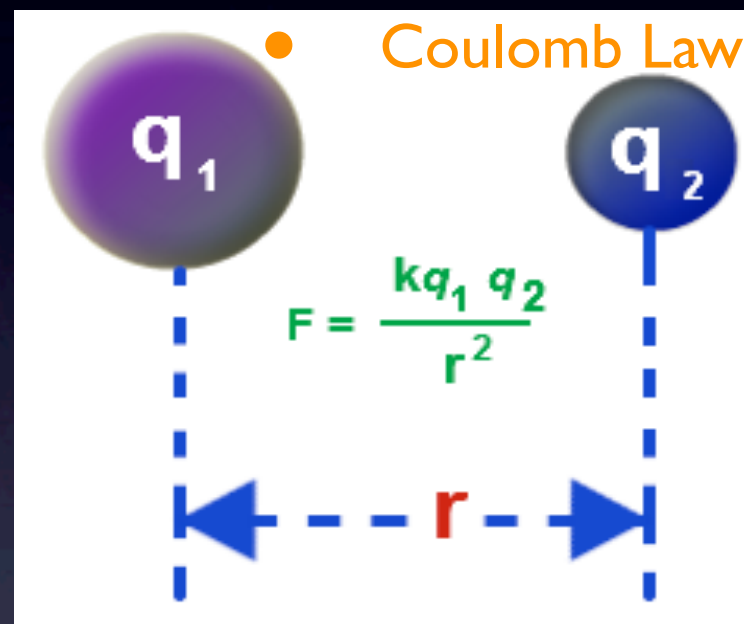
Ask Mish

Coulomb's Law

- Charles Coulomb (1736-1806: French)
 - Studied relationship between force and charge

Unit of charge = 1 coulomb (C)

The charge on 1 electron is $(1.6 \times 10^{-19} \text{ C})$



- Electric charge : of a particle +/- units or fraction
- If charged particles are **not moving**: **Electrostatic Force** between 2 charged particles q_1 and q_2 at r distance.
Coulomb Law: $q_1 \times q_2 / r \times r$. 2 same charges repel, opposite attract each other.
- If charged particle **is moving**: **Magnetic Force**: is perpendicular on electric F (right hand rule), changing magnetic poles makes the particle to move further

