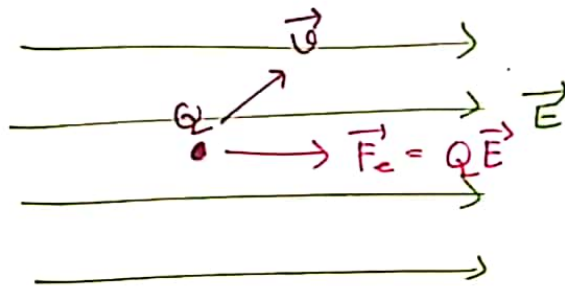


Lorentz Force eq.ⁿ

- Lorentz has calculated Force on moving charge q due to electric field and magnetic field.
- Force acting on moving charge q due to E-field.

- Force acting on moving charge q due to E-field.

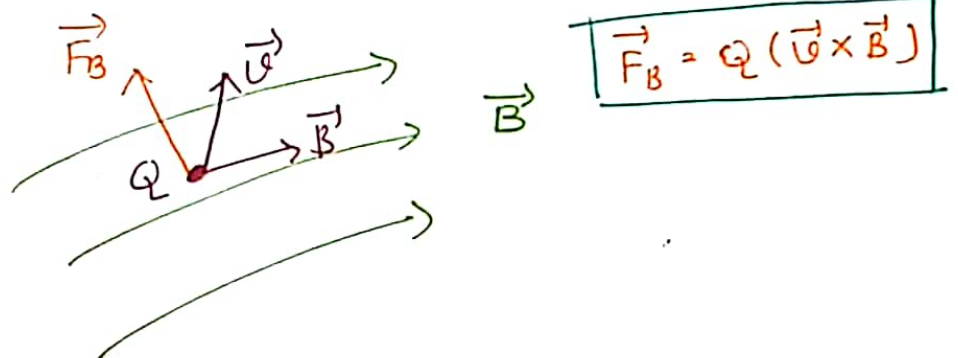
If Q is +ve,
then direction
of $\vec{E}$ & $\vec{F}_e$
will be same.



→ If Q is -ve,
then direction
of $\vec{E}$ & $\vec{F}_e$
will be Opposite.

- Force acting on moving charge Q due to B-field

- Force acting on moving charge Q due to B -field



- Resultant Force due to E -field and H -field

$$\vec{F} = \vec{F}_E + \vec{F}_B$$

$$\boxed{\vec{F} = Q[\vec{E} + \vec{U} \times \vec{B}]}$$