A2 Seconda tabella percorsi paralleli

Non è stato facile dare un titolo alle pagine dei paragrafi che riportano le tabelle dei percorsi di campo paralleli e il lettore dovrà comprendere lo scopo principale della loro rappresentazione: evidenziare l’analogia concettuale.

Tabella A2 Grandezze dei percorsi paralleli

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Grandezze | Dinamica 1 | Dinamica 2 | Elettro-termica | Magneto-elettrica |  |
| 1 | Costante di campo$$K\_{p}=\frac{hc}{Ca^{2}}$$ | $$K\_{C}=\frac{hc}{λ\_{p}^{2}}$$ | $$K\_{D}=G\_{p}=\frac{hc}{m\_{p}^{2}}$$ | $$K\_{E}=\frac{hc}{e^{2}}$$ | $$K\_{T}=\frac{hc}{k\_{c}^{2}}$$ | $$h=m\_{p}λ\_{p}c=$$$$=ek\_{c}c$$ |
| 2 | Fattore attrattivo$$K\_{p}=\frac{Φ\_{p}}{Ca}$$ | $$K\_{C}=\frac{m\_{p}c^{2}}{λ\_{p}}=\frac{Φ\_{c}}{λ\_{p}}$$ | $$K\_{D}=G\_{p}=\frac{λ\_{p}c^{2}}{m\_{p}}=\frac{Φ\_{D}}{m\_{p}}$$ | $$K\_{E}=\frac{k\_{c}c^{2}}{e}=\frac{Φ\_{E}}{e}$$ | $$K\_{T}=\frac{ec^{2}}{k\_{c}}=\frac{Φ\_{T}}{k\_{c}}$$ |  |
| 3 | Resistenza$$R\_{p}=\frac{h}{Ca^{2}}$$ | $$R\_{C}=\frac{h}{λ\_{p}^{2}}$$ | $$R\_{D}=\frac{h}{m\_{p}^{2}}$$ | $$R\_{E}=\frac{h}{e^{2}}$$ | $$R\_{T}=\frac{h}{k\_{c}^{2}}$$ |  |
| 4 | Resistenza$$R\_{p}=\frac{Φcc}{Ca}$$ | $$R\_{C}=\frac{m\_{p}c}{λ\_{p}}$$ | $$R\_{D}=\frac{λ\_{p}c}{m\_{p}}$$ | $$R\_{E}=\frac{k\_{c}c}{e}$$ | $$R\_{T}=\frac{ec}{k\_{c}}$$ | $$c^{2}=R\_{C}R\_{D}=R\_{T}R\_{E}$$ |
| 5 | Potenziale$$Pl\_{p}=R\_{p} I$$ | $$Pl\_{C}=R\_{C}I\_{C}=c^{2}$$ | $$Pl\_{D}=R\_{D}I\_{D}=F$$ | $$Pl\_{T}=R\_{T}I\_{T}=T$$ | $$Pl\_{E}=R\_{E}I\_{E}=V$$ |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Grandezze | Dinamica 1 | Dinamica 2 | Elettro-termica | Magneto-elettrica |  |
| 6 | Potenziale$$Pl\_{p}=\frac{Φ\_{p}}{λ\_{p}}$$ | $$Pl\_{C}=\frac{Φ\_{C}}{λ\_{e}}=c^{2}$$ | $$Pl\_{D}=\frac{Φ\_{D}}{λ\_{e}}=F$$ | $$Pl\_{T}=\frac{Φ\_{T}}{λ\_{e}}=T$$ | $$Pl\_{E}=\frac{Φ\_{E}}{λ\_{e}}=V$$ |  |
| 7 | Fattore “riluttivo”$$k\_{Rp}=\frac{Ca}{Ca\_{C}}$$ | $$k\_{RC}=\frac{λ\_{p}}{m\_{p}}$$ | $$k\_{RD}=\frac{m\_{p}}{λ\_{p}}$$ | $$k\_{RT}=\frac{e}{k\_{c}}$$ | $$k\_{RE}=\frac{k\_{c}}{e}$$ |  |
| 8 | Induttanza$$L\_{P}=k\_{Rp} λ\_{p}$$ | $$L\_{C}=\frac{λ\_{p}λ\_{p}}{m\_{p}}$$ | $$L\_{D}=\frac{m\_{p}λ\_{p}}{λ\_{p}}$$ | $$L\_{E}=\frac{k\_{c}λ\_{p}}{e}$$ | $$L\_{T}=\frac{eλ\_{p}}{k\_{c}}$$ |  |
| 9 | potenziale | $$c^{2}=L\_{C}\frac{m\_{p}c^{2}}{λ^{2}}$$ | $$F=L\_{D}\frac{λ\_{p}c^{2}}{λ^{2}}$$ | $$V=L\_{E}\frac{ec^{2}}{λ^{2}}$$ | $$T=L\_{T}\frac{k\_{c}c^{2}}{λ^{2}}$$ |  |
| 10 | Riluttanza | $$R\_{C}=\frac{1}{k\_{RC}λ\_{p}}$$ | $$R\_{D}=\frac{1}{k\_{RD}λ\_{p}}$$ | $$R\_{T}=\frac{1}{k\_{RT}λ\_{p}}$$ | $$R\_{E}=\frac{1}{k\_{RE}λ\_{p}}$$ | $$R\_{x}=\frac{λ\_{p}}{k\_{x}S\_{p}}$$ |
| 11 | Corrente “riluttiva” | $$I\_{RC}=R\_{C}Φ\_{eC}$$ | $$I\_{RD}=R\_{D}Φ\_{eD}$$ | $$I\_{RT}=R\_{T}Φ\_{eT}$$ | $$I\_{RE}=R\_{E}Φ\_{eE}$$ |  |
| 12 | Capacità$$C\_{P}=\frac{Ca}{Pl\_{p}c}$$ | $$C\_{C}= \frac{λ\_{p}}{F}$$ | $$C\_{D}=\frac{m\_{p}}{c^{2}}$$ | $$C\_{E}=\frac{e}{V}$$ | $$C\_{T}=\frac{k\_{c}}{T}$$ |  |
|  |  |  |  |  |  |  |
|  | Grandezze | Dinamica 1 | Dinamica 2 | Elettro-termica | Magneto-elettrica |  |
| 13 | Capacità | $$C\_{C}= \frac{λ\_{p}}{K\_{C}}$$ | $$C\_{D}=\frac{λ\_{p}}{K\_{D}}$$ | $$C\_{E}=\frac{λ\_{p}}{K\_{E}}$$ | $$C\_{T}=\frac{λ\_{p}}{K\_{T}}$$ |  |
| 14 | Forza$$F\_{P}=K\_{p}\frac{Ca^{2}}{λ\_{p}^{2}}$$ | $$F\_{C}=K\_{C}\frac{λ\_{p}^{2}}{λ\_{p}^{2}}$$ | $$F\_{D}=K\_{D}\frac{m\_{p}^{2}}{λ\_{p}^{2}}$$ | $$F\_{E}=K\_{E}\frac{e^{2}}{λ\_{p}^{2}}$$ | $$F\_{T}=K\_{T}\frac{k\_{c}^{2}}{λ\_{p}^{2}}$$ |  |
| 15 | Forza | $$F\_{C}=B\_{D}λ\_{p}I\_{C}$$ | $$F\_{D}=B\_{C}λ\_{p}I\_{D}$$ | $$F\_{E}=B\_{m}λ\_{p}I\_{E}$$ | $$F\_{T}=B\_{E}λ\_{p}I\_{T}$$ | $$F=I\_{C}I\_{D}=I\_{T}I\_{E}$$ |
| 16 | Energia$$E\_{P}=Ca Pl\_{C}$$ | *EC = mp c2* | *EDp FC* | *EE = e V* | *ET = kc T* | $$En=\frac{hc}{λ\_{p}}$$ |
| 17 | Potenza | $$ P\_{C}=R\_{C}I\_{C}^{2}$$ | $$ P\_{D}=R\_{D}I\_{D}^{2}$$ | $$ P\_{E}=R\_{E}I\_{E}^{2}$$ | $$ P\_{T}=R\_{T}I\_{T}^{2}$$ |  |
| 18 | Densità di potenza irradiata | $$\frac{P}{λ^{2}}=σ\_{c}c^{8}$$ | $$\frac{P}{λ^{2}}=σ\_{F}F^{4}$$ | $$\frac{P}{λ^{2}}=σ\_{V}V^{4}$$ | $$\frac{P}{λ^{2}}=σ\_{T}T^{4}$$ | $$\frac{P}{λ^{2}}=\frac{hc^{2}}{λ^{4}}$$ |
| 19 | Fattori di radiazione | $$σ\_{c}=\frac{m}{λ^{3}c^{5}}$$ | $$σ\_{F}=\frac{λ}{m^{3}c^{5}}$$ | $$σ\_{V}=\frac{e}{k\_{c}^{3}c^{5}}$$ | $$σ\_{T}=\frac{k\_{c}}{e^{3}c^{5}}$$ |  |