Formulário Prova Final - Teoria electromagnética I

$\vec{E}_{\text{dip}} = \frac{1}{4\pi\epsilon_0 r^3}(3(\vec{p}.\hat{r})\hat{r} - \vec{p})$; $\vec{B}_{\text{dip}} = \frac{\mu_0}{4\pi r^3}\ (3(\vec{m}.\hat{r})\hat{r} - \vec{m})$ $\phi_{\text{dip}} = \frac{\vec{P}\cdot\hat{r}}{4\pi\epsilon_0 r^2}$; $U_{\text{dip}} = -\vec{P}.\vec{E}$ $\sigma_P = \vec{P}.\hat{n}$; $\rho_P = -\vec{\nabla}.\vec{P}$; $\vec{\nabla}.\vec{D} = \rho_L$; $\vec{D} = \epsilon_0\vec{E} + \vec{P} = \epsilon\vec{E}$ $\vec{p} = \int \vec{r}\rho dV = \int \sigma\vec{r}da$; $\vec{P} = (\epsilon - \epsilon_0)\vec{E} = \epsilon_0\chi_E\vec{E}$; $\vec{J}_M = \vec{\nabla}\times\vec{M}$; $\vec{K}_M = \vec{M}\times\hat{n}$; $\vec{m} = \frac{1}{2}\int \vec{r}\times\vec{J}dV = \frac{1}{2}\int \vec{r}\times\vec{K}da = \frac{1}{2}\int \vec{r}\times\vec{I}dl = I\int \vec{da}$; $\vec{B}/\mu_0 = \vec{H} + \vec{M} = \vec{H}\mu/\mu_0$; $\vec{M} = \chi_M\vec{H} = \frac{\mu-\mu_0}{\mu_0}\vec{H}$; $\vec{\nabla}\times\vec{H} = \vec{J}_L$.

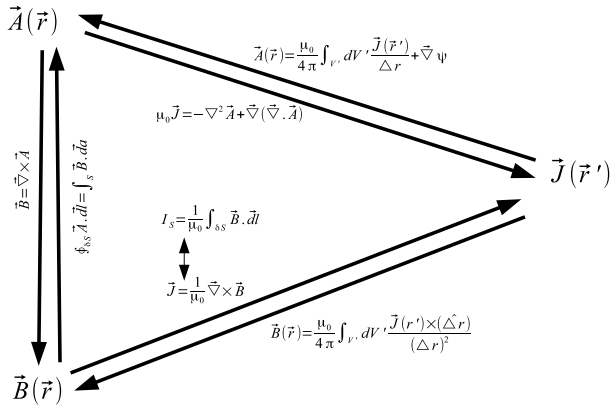

Figura 1: Quadro resumo Magnetostática.

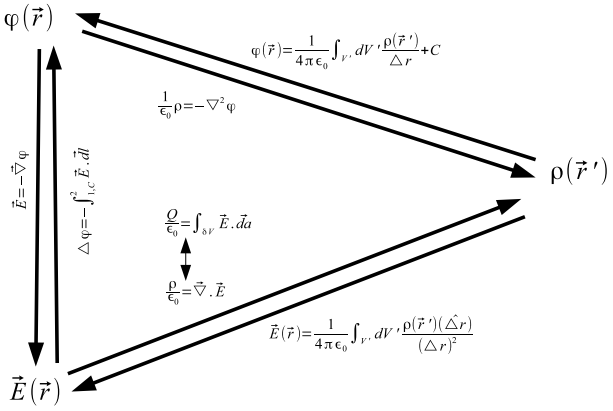

Figura 2: Quadro resumo Eletrostática.