PHY 2323 Cheat Sheet

1   Chapter 1, 2: Math Review

1.1   Coordinate Systems

2   Chapter 3: Electrostatics

2.1   Coulombs Law

$$\vec{E}(\vec{r}) = \frac{1}{4\pi\epsilon_0} \int_S \frac{\rho(\vec{r}\prime)(\vec{r} - \vec{r}\prime)}{|\vec{r} - \vec{r}\prime|^3} \mathrm{d}l$$

This can also be extended to a surface with

2.2   Gausses Law