THE COULOMB AND AMPÈRE MAXWELL LAWS

$$\underline{\nabla} \cdot \underline{E} = \frac{\rho}{\epsilon_0} = \frac{\phi}{2r^2}\left(2 + \frac{x}{1-x}\right)\frac{x}{1-x}$$

$$\underline{\nabla} \times \underline{B} = \frac{1}{c^2}\frac{\partial \underline{E}}{\partial t} + \mu_0 \underline{J}$$

where: $x = \frac{2MG}{rc^2}$,

$$\underline{J} = J_r \underline{e}_r$$

$$J_r = \frac{A^{(0)}}{\mu_0}\frac{x}{2r^2}$$