Erratum

Page 112, Eq. (5.37); Page 113, Eqs. (5.38) and (5.39): the value "8" changes with the value "4" in the denominator so that the correct equations are the following:

$$B^{x,n+1}_{i,j,k} = B^{x,n}_{i,j,k} - \frac{c\Delta t}{4\Delta y}\delta_y E^z + \frac{c\Delta t}{4\Delta z}\delta_z E^y, \tag{5.37}$$

$$B^{y,n+1}_{i,j,k} = B^{y,n}_{i,j,k} - \frac{c\Delta t}{4\Delta z}\delta_z E^x + \frac{c\Delta t}{4\Delta x}\delta_x E^z, \tag{5.38}$$

$$B^{z,n+1}_{i,j,k} = B^{z,n}_{i,j,k} - \frac{c\Delta t}{4\Delta x}\delta_x E^y + \frac{c\Delta t}{4\Delta y}\delta_y E^x, \tag{5.39}$$

Page 181, Line 2 (bottom): $v_{\mathrm{A}} \to 0$ changes with $v_{\mathrm{A}} \to \infty$. The correct sentence is the following:

But as $n_{\mathrm{i}} \to 0$, $v_{\mathrm{A}} \to \infty$, negating our premise.

Page 269. The value Z_i must be removed from Eq. (10.19). The correct equation is the following:

$$\epsilon\frac{\partial \vec{J}_{\mathrm{i}}}{\partial t} + \epsilon\nabla\cdot\mathrm{K}_{\mathrm{i}} - n_{\mathrm{i}}\vec{E} - (\vec{J}_{\mathrm{i}}\times\vec{B}) - l^*_{\mathrm{d}} n_{\mathrm{i}}\vec{J} = 0. \tag{10.19}$$

Page 356, Eq. (13.5); Page 358, Eq. (13.10); Page 360, Eq. (13.15): the coefficient γ changes with $(\gamma-1)$ in the third term of the left side of these equations. The correct equations are the following:

$$\frac{\partial p_{\mathrm{e}}}{\partial t} + \left(\frac{\partial p_{\mathrm{e}} U_{\mathrm{ex}}}{\partial x} + \frac{\partial p_{\mathrm{e}} U_{\mathrm{ey}}}{\partial y} + \frac{\partial p_{\mathrm{e}} U_{\mathrm{ez}}}{\partial z}\right) + (\gamma-1)p_{\mathrm{e}}\left(\frac{\partial U_{\mathrm{ex}}}{\partial x} + \frac{\partial U_{\mathrm{ey}}}{\partial y} + \frac{\partial U_{\mathrm{ez}}}{\partial z}\right) = \\ = \frac{(\gamma-1)}{\sigma_{\mathrm{eff}}} J^2. \tag{13.5}$$

$$\frac{\partial p_{\mathrm{e}}}{\partial t} + \left(\frac{1}{r}\frac{\partial(r p_{\mathrm{e}} U_{\mathrm{er}})}{\partial r} + \frac{1}{r}\frac{\partial(p_{\mathrm{e}} U_{\mathrm{e}\phi})}{\partial \phi} + \frac{\partial(p_{\mathrm{e}} U_{\mathrm{ez}})}{\partial z}\right) \\ +(\gamma-1)p_{\mathrm{e}}\left(\frac{1}{r}\frac{\partial(r U_{\mathrm{er}})}{\partial r} + \frac{1}{r}\frac{\partial(U_{\mathrm{e}\phi})}{\partial \phi} + \frac{\partial U_{\mathrm{ez}}}{\partial z}\right) = \frac{(\gamma-1)}{\sigma_{\mathrm{eff}}} J^2. \tag{13.10}$$

$$\frac{\partial p_{\mathrm{e}}}{\partial t} + \left(\frac{1}{r^2}\frac{\partial(r^2 p_{\mathrm{e}} U_{\mathrm{er}})}{\partial r} + \frac{1}{r\sin\theta}\frac{\partial(p_{\mathrm{e}} U_{\mathrm{e}\theta}\sin\theta)}{\partial \theta} + \frac{1}{r\sin\theta}\frac{\partial p_{\mathrm{e}} U_{\mathrm{e}\phi}}{\partial \phi}\right) \\ +(\gamma-1)p_{\mathrm{e}}\left(\frac{1}{r^2}\frac{\partial(r^2 U_{\mathrm{er}})}{\partial r} + \frac{1}{r\sin\theta}\frac{\partial(U_{\mathrm{e}\theta}\sin\theta)}{\partial \theta} + \frac{1}{r\sin\theta}\frac{\partial U_{\mathrm{e}\phi}}{\partial \phi}\right) \\ = \frac{(\gamma-1)}{\sigma_{\mathrm{eff}}} J^2. \tag{13.15}$$

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