Corrections

pg	correction
✓10	(Schultz 156) $\longrightarrow$ (Schutz 156)
✓25	gravodyanmic $\longrightarrow$ gravodynamic
	electromagnetic $\longrightarrow$ electrodynamic
✓36	condition (3) $\longrightarrow$ condition (2)
✓37	imposed $\longrightarrow$ impose, a orthogonal $\longrightarrow$ an orthogonal
✓38	using $e_{\mu\nu}$, $\mathfrak{e}_{\mu\nu}$, $\mathbb{e}_{\mu\nu}$ $\longrightarrow$ using $e_{\mu\nu}$, $\mathfrak{e}_{\mu\nu}$, and $\mathbb{e}_{\mu\nu}$
✓39	simplifiying $\longrightarrow$ simplifying
✓41	spacial $\longrightarrow$ spatial
✓49	(Schultz 155) $\longrightarrow$ (Schutz 155)
✓52	$g_{14} = \vec{R}_f \circ \vec{R}_u \longrightarrow g_{14} = \vec{R}_u \circ \vec{R}_f,\ g_{24} = \vec{R}_f \circ \vec{R}_v \longrightarrow g_{24} = \vec{R}_v \circ \vec{R}_f,$
	$g_{34} = \vec{R}_f \circ \vec{R}_w \longrightarrow g_{34} = \vec{R}_w \circ \vec{R}_f$ and at bottom $g_{14} = \vec{R}_f \circ \vec{R}_u \longrightarrow g_{14} = \vec{R}_u \circ \vec{R}_f$
✓53	$g_{14} = \vec{R}_f \circ \vec{R}_u \longrightarrow g_{14} = \vec{R}_u \circ \vec{R}_f$
✓63	spacial $\longrightarrow$ spatial

$$\underset{44}{R} = \frac{1}{2}\left[\ \dots - \overset{i4}{g}\ \underset{44}{g_{4i}}\right] \longrightarrow \underset{44}{R} = \frac{1}{2}\left[\ \dots - \overset{4i}{g}\ \underset{44}{g_{i4}}\right]$$

$$\boxed{\underset{44}{R} = \dots} \longrightarrow \boxed{\underset{44}{R} = \dots}\ \text{where we used } \overset{4i}{g} \sim \frac{1}{c} \ll \overset{ii}{g} \sim 1.$$

✓71

$$\left(\overset{\nu}{\vec{v}}, c\right) \longrightarrow \left(\vec{v}, c\right)$$

$$\boxed{\underset{\mu}{\mathcal{F}} = \frac{q}{c}\gamma\, \underset{\mu\nu}{\mathbb{E}}\, \overset{\nu}{V}} \longrightarrow \boxed{\underset{\mu}{\mathcal{F}} = \frac{q}{c}\, \underset{\mu\nu}{\mathbb{E}}\, \overset{\nu}{V}}$$

$$\overset{\alpha\mu}{e}\, \underset{\mu}{\mathcal{F}} = \frac{q}{c}\gamma\, \overset{\alpha\mu}{e}\, \underset{\mu\nu}{\mathbb{E}}\, \overset{\nu}{V} \implies \overset{\alpha}{\mathcal{F}} = \frac{q}{c}\gamma\, \overset{\alpha}{\underset{\nu}{\mathbb{E}}}\, \overset{\nu}{V}$$

$$\longrightarrow \overset{\alpha\mu}{e}\, \underset{\mu}{\mathcal{F}} = \frac{q}{c}\, \overset{\alpha\mu}{e}\, \underset{\mu\nu}{\mathbb{E}}\, \overset{\nu}{V} \implies \overset{\alpha}{\mathcal{F}} = \frac{q}{c}\, \overset{\alpha}{\underset{\nu}{\mathbb{E}}}\, \overset{\nu}{V}$$

$$\overset{\mu}{\mathcal{F}} = \frac{q}{c}\gamma\, \overset{\mu}{\underset{\nu}{\mathbb{E}}}\, \overset{\nu}{V} \longrightarrow \overset{\mu}{\mathcal{F}} = \frac{q}{c}\, \overset{\mu}{\underset{\nu}{\mathbb{E}}}\, \overset{\nu}{V}$$

out ⟶ our

✓72 where $\overset{\nu}{\mathrm{V}} = \left(\vec{\mathrm{v}}, \mathrm{c}\right) \longrightarrow$ where $\overset{\nu}{\mathrm{V}} = \gamma\left(\vec{\mathrm{v}}, \mathrm{c}\right)$

✓84 $\overset{\nu}{\left(\vec{\mathrm{v}}, \mathrm{c}\right)} \longrightarrow \left(\vec{\mathrm{v}}, \mathrm{c}\right)$

$$\overset{\alpha\mu}{\mathrm{g}}\underset{\mu}{\mathrm{F}} = \frac{\mathrm{m}_{\mathrm{g}}}{\mathrm{c}}\gamma\,\overset{\alpha\mu}{\mathrm{g}}\underset{\mu\nu}{\mathbb{R}}\overset{\nu}{\mathrm{V}} \Longrightarrow \overset{\alpha}{\mathrm{F}} = \frac{\mathrm{m}_{\mathrm{g}}}{\mathrm{c}}\gamma\,\overset{\alpha}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}}$$

$$\longrightarrow \overset{\alpha\mu}{\mathrm{g}}\underset{\mu}{\mathrm{F}} = \frac{\mathrm{m}_{\mathrm{g}}}{\mathrm{c}}\overset{\alpha\mu}{\mathrm{g}}\underset{\mu\nu}{\mathbb{R}}\overset{\nu}{\mathrm{V}} \Longrightarrow \overset{\alpha}{\mathrm{F}} = \frac{\mathrm{m}_{\mathrm{g}}}{\mathrm{c}}\overset{\alpha}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}}$$

$$\overset{\mu}{\mathrm{F}} = \frac{\mathrm{m}_{\mathrm{g}}}{\mathrm{c}}\gamma\,\overset{\mu}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}} \longrightarrow \overset{\mu}{\mathrm{F}} = \frac{\mathrm{m}_{\mathrm{g}}}{\mathrm{c}}\overset{\mu}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}}$$

$$\boxed{\overset{\mu}{\mathrm{K}} = \sum \frac{\rho_{0\mathrm{m}}}{\mathrm{c}}\overset{\mu}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}} = \frac{\mathrm{m}}{\mathrm{c}}\gamma\,\overset{\mu}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}}} \longrightarrow \boxed{\overset{\mu}{\mathrm{K}} = \sum \frac{\rho_{0\mathrm{m}}}{\mathrm{c}}\overset{\mu}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}} = \frac{\mathrm{m}}{\mathrm{c}}\overset{\mu}{\underset{\nu}{\mathbb{R}}}\overset{\nu}{\mathrm{V}}}$$

here $\overset{\nu}{\mathrm{V}} = \left(\vec{\mathrm{v}}, \mathrm{c}\right) \longrightarrow$ here $\overset{\nu}{\mathrm{V}} = \gamma\left(\vec{\mathrm{v}}, \mathrm{c}\right)$

✓96 gravity ⟶ GR

✓101 = 1. ⟶ = 1 and we can also have $\overset{11}{\mathrm{e}} = \overset{22}{\mathrm{e}} = \overset{33}{\mathrm{e}} = 2$.

line above EQ (7.8) $\dfrac{1}{2\,\mathrm{c}^2} \longrightarrow \dfrac{1}{\mathrm{c}^2}$

EQ (7.8) $\dfrac{1}{2\,\mathrm{c}^2} \longrightarrow \dfrac{1}{\mathrm{c}^2}$ and $\approx \longrightarrow =$

✓104 $+\dfrac{1}{\mathrm{c}}\left(\underset{11}{\mathfrak{e}}_4 - \underset{41}{\mathfrak{e}}_1\right)_{\mathrm{t}} \longrightarrow \dfrac{1}{\mathrm{c}^2}\left(\underset{11}{\mathfrak{e}}_{\mathrm{t}} - \underset{\mathrm{t}1}{\mathfrak{e}}_1\right)_{\mathrm{t}}$

✓107 (7.12) $\boxed{\underset{14}{\mathscr{A}} \Longrightarrow \frac{1}{2}[\![\,]\!] = \frac{4\pi}{\mathrm{c}}\underset{1}{j}}$ ⟶ (7.12) $\boxed{\underset{14}{\mathscr{A}} \Longrightarrow [\![\,]\!] = \frac{4\pi}{\mathrm{c}}\underset{1}{j}}$

remove

We will show the ... $\boxed{\underset{14}{\mathscr{A}} \Longrightarrow \frac{1}{2}\left[\!\!\left[\partial_{2} b_{3} - \partial_{3} b_{2} + \frac{1}{\mathrm{c}}\left(-\partial_{\mathrm{t}} \underline{e}_{1}\right)\right]\!\!\right] = \frac{4\pi}{\mathrm{c}}\underset{1}{j}}$

add

We have used a MLIF where $\overset{\mu\nu}{\mathrm{e}} = \begin{pmatrix} 2 & 0 & 0 & \frac{2}{c} \\ 0 & 2 & 0 & \frac{2}{c} \\ 0 & 0 & 2 & \frac{2}{c} \\ \frac{2}{c} & \frac{2}{c} & \frac{2}{c} & -\frac{2}{c^2} \end{pmatrix}$.

✓111 (7.16) $\boxed{\underset{24}{\mathcal{A}} \Longrightarrow \frac{1}{2}[\![\,]\!] = \frac{4\pi}{c}\underset{2}{j}}$ $\longrightarrow$ (7.16) $\boxed{\underset{24}{\mathcal{A}} \Longrightarrow [\![\,]\!] = \frac{4\pi}{c}\underset{2}{j}}$

✓114 $$\underset{34}{\mathcal{A}} = \frac{1}{2}\Big[\!\!\Big[\overset{11}{\mathrm{e}}\Big[\left(\frac{\underset{2}{b}}{c^2}\right)_1 + \left(-\frac{\underset{2}{\underline{b}}}{c^2}\right)_t\Big] + \overset{22}{\mathrm{e}}\Big[\left(-\frac{\underset{1}{b}}{c^2}\right)_2 + \left(\frac{\underset{1}{\underline{b}}}{c^2}\right)_4\Big]$$

$$+\overset{14}{\mathrm{e}}\Big[\left(\frac{\underset{3}{e}}{c^2}\right)_1 + \left(-\frac{\underset{3}{\underline{e}}}{c}\right)_4\Big]\Big]\!\!\Big]$$

$$\underset{34}{\mathcal{A}} = \frac{1}{2c^2}\Big[\!\!\Big[\overset{11}{\mathrm{e}}\left(\underset{1}{\partial}\underset{2}{b} - \underset{4}{\partial}\underset{2}{\underline{b}}\right) + \overset{22}{\mathrm{e}}\left(-\underset{2}{\partial}\underset{1}{b} + \underset{4}{\partial}\underset{1}{\underline{b}}\right)$$

$$+\overset{14}{\mathrm{e}}\left(\underset{1}{\partial}\underset{3}{e} - \underset{4}{\partial}\underset{3}{\underline{e}}\right)\Big]\!\!\Big] = \frac{4\pi}{c^3}\underset{3}{j}$$

$$\longrightarrow \underset{34}{\mathcal{A}} = \frac{1}{2}\Big[\!\!\Big[\overset{11}{\mathrm{e}}\Big[\left(\frac{\underset{2}{b}}{c^2}\right)_1 + \left(-\frac{\underset{2}{\underline{b}}}{c^2}\right)_t\Big] + \overset{22}{\mathrm{e}}\Big[\left(-\frac{\underset{1}{b}}{c^2}\right)_2 + \left(\frac{\underset{1}{\underline{b}}}{c^2}\right)_t\Big]$$

$$+\overset{14}{\mathrm{e}}\Big[\left(\frac{\underset{3}{e}}{c^2}\right)_1 + \left(-\frac{\underset{3}{\underline{e}}}{c}\right)_t\Big]\Big]\!\!\Big]$$

$$\underset{34}{\mathcal{A}} = \frac{1}{2c^2}\Big[\!\!\Big[\overset{11}{\mathrm{e}}\left(\underset{1}{\partial}\underset{2}{b} - \underset{t}{\partial}\underset{2}{\underline{b}}\right) + \overset{22}{\mathrm{e}}\left(-\underset{2}{\partial}\underset{1}{b} + \underset{t}{\partial}\underset{1}{\underline{b}}\right)$$

$$+\overset{14}{\mathrm{e}}\left(\underset{1}{\partial}\underset{3}{e} - \underset{t}{\partial}\underset{3}{\underline{e}}\right)\Big]\!\!\Big] = \frac{4\pi}{c^3}\underset{3}{j}$$

✓116 (7.20) $\boxed{\underset{34}{\mathcal{A}} \Longrightarrow \frac{1}{2}[\![\,]\!] = \frac{4\pi}{c}\underset{3}{j}}$ $\longrightarrow$ (7.20) $\boxed{\underset{34}{\mathcal{A}} \Longrightarrow [\![\,]\!] = \frac{4\pi}{c}\underset{3}{j}}$

remove

We have ... (up to)   It is concievable

remove

, line up vector components ... use a MLIF

$$\overset{\mu\nu}{e} = \begin{pmatrix} 2 & 0 & 0 & 2 \\ 0 & 2 & 0 & 2 \\ 0 & 0 & 2 & 2 \\ 2 & 2 & 2 & -2 \end{pmatrix} \longrightarrow \overset{\mu\nu}{e} = \begin{pmatrix} 2 & 0 & 0 & \frac{2}{c} \\ 0 & 2 & 0 & \frac{2}{c} \\ 0 & 0 & 2 & \frac{2}{c} \\ \frac{2}{c} & \frac{2}{c} & \frac{2}{c} & -\frac{2}{c^2} \end{pmatrix}$$

✓117   remove vector notation from top two lines

we have $\vec{\nabla} \times \vec{\boldsymbol{b}}$

$\longrightarrow$ we have something that looks like $\vec{\nabla} \times \vec{\boldsymbol{b}}$

(7.23)

$$\boxed{\underset{1}{\underline{b}} = c\left(\underset{33}{e_2} - \underset{23}{e_3}\right)} \quad \boxed{\underset{2}{\underline{b}} = c\left(\underset{13}{e_3} - \underset{33}{e_1}\right)} \quad \boxed{\underset{3}{\underline{b}} = c\left(\underset{22}{e_1} - \underset{12}{e_2}\right)}$$

and

$$\boxed{\underset{1}{\underline{b}} = c\left(\underset{32}{e_2} - \underset{22}{e_3}\right)} \quad \boxed{\underset{2}{\underline{b}} = c\left(\underset{11}{e_3} - \underset{31}{e_1}\right)} \quad \boxed{\underset{3}{\underline{b}} = c\left(\underset{21}{e_1} - \underset{11}{e_2}\right)}$$

$\longrightarrow$ (7.23)

$$\boxed{\underset{1}{\underline{b}} = c\left(\underset{33}{\mathfrak{e}_2} - \underset{23}{\mathfrak{e}_3}\right)} \quad \boxed{\underset{2}{\underline{b}} = c\left(\underset{13}{\mathfrak{e}_3} - \underset{33}{\mathfrak{e}_1}\right)} \quad \boxed{\underset{3}{\underline{b}} = c\left(\underset{22}{\mathfrak{e}_1} - \underset{12}{\mathfrak{e}_2}\right)}$$

and

$$\boxed{\underset{1}{\underline{b}} = c\left(\underset{32}{\mathfrak{e}_2} - \underset{22}{\mathfrak{e}_3}\right)} \quad \boxed{\underset{2}{\underline{b}} = c\left(\underset{11}{\mathfrak{e}_3} - \underset{31}{\mathfrak{e}_1}\right)} \quad \boxed{\underset{3}{\underline{b}} = c\left(\underset{21}{\mathfrak{e}_1} - \underset{11}{\mathfrak{e}_2}\right)}$$

✓121   can the $\longrightarrow$ can then

= 1. $\longrightarrow$ = 1 and we can also have $\overset{11}{g} = \overset{22}{g} = \overset{33}{g} = 2$.

line above EQ (7.31) $\dfrac{1}{2\,c^2} \longrightarrow \dfrac{1}{c^2}$

EQ (7.31) $\dfrac{1}{2\,c^2} \longrightarrow \dfrac{1}{c^2}$ and $\approx \longrightarrow =$

✓124 (7.35) $\boxed{\underset{14}{R} \Longrightarrow \frac{1}{2}[\![\,]\!] = \frac{4\pi}{c}\underset{1}{j}}$ $\longrightarrow$ (7.35) $\boxed{\underset{14}{R} \Longrightarrow [\![\,]\!] = \frac{4\pi}{c}\underset{1}{j}}$

✓127 EQ (7.39) $-\partial_1 \underline{b}_3 + \partial_t b_3 \longrightarrow -\partial_1 b_3 + \partial_t \underline{b}_3$

(7.39) $\boxed{\underset{24}{R} \Longrightarrow \frac{1}{2}[\![\,]\!] = \frac{4\pi}{c}\underset{2}{j}}$ $\longrightarrow$ (7.39) $\boxed{\underset{24}{R} \Longrightarrow [\![\,]\!] = \frac{4\pi}{c}\underset{2}{j}}$

✓129 (7.43) $\boxed{\underset{34}{R} \Longrightarrow \frac{1}{2}[\![\,]\!] = \frac{4\pi}{c}\underset{3}{j}}$ $\longrightarrow$ (7.43) $\boxed{\underset{34}{R} \Longrightarrow [\![\,]\!] = \frac{4\pi}{c}\underset{3}{j}}$

$$\overset{\mu\nu}{g} = \begin{pmatrix} 2 & 0 & 0 & 2 \\ 0 & 2 & 0 & 2 \\ 0 & 0 & 2 & 2 \\ 2 & 2 & 2 & -2 \end{pmatrix} \longrightarrow \overset{\mu\nu}{g} = \begin{pmatrix} 2 & 0 & 0 & \frac{2}{c} \\ 0 & 2 & 0 & \frac{2}{c} \\ 0 & 0 & 2 & \frac{2}{c} \\ \frac{2}{c} & \frac{2}{c} & \frac{2}{c} & -\frac{2}{c^2} \end{pmatrix}$$

✓130 (7.47) $\boxed{\underset{1}{\underline{b}} = c\left(\underset{33}{\mathrm{g}_2} - \underset{23}{g_3}\right)}$ $\boxed{\underset{2}{\underline{b}} = c\left(\underset{13}{\mathrm{g}_3} - \underset{33}{g_1}\right)}$ $\boxed{\underset{3}{\underline{b}} = c\left(\underset{22}{\mathrm{g}_1} - \underset{12}{g_2}\right)}$

and

$\boxed{\underset{1}{\underline{b}} = c\left(\underset{32}{\mathrm{g}_2} - \underset{22}{g_3}\right)}$ $\boxed{\underset{2}{\underline{b}} = c\left(\underset{11}{\mathrm{g}_3} - \underset{31}{g_1}\right)}$ $\boxed{\underset{3}{\underline{b}} = c\left(\underset{21}{\mathrm{g}_1} - \underset{11}{g_2}\right)}$

$\longrightarrow$ (7.47) $\boxed{\underset{1}{\underline{b}} = c\left(\underset{33}{\mathfrak{g}_2} - \underset{23}{\mathrm{g}_3}\right)}$ $\boxed{\underset{2}{\underline{b}} = c\left(\underset{13}{\mathrm{g}_3} - \underset{33}{\mathfrak{g}_1}\right)}$ $\boxed{\underset{3}{\underline{b}} = c\left(\underset{22}{\mathfrak{g}_1} - \underset{12}{\mathrm{g}_2}\right)}$

and

$\boxed{\underset{1}{\underline{b}} = c\left(\underset{32}{\mathrm{g}_2} - \underset{22}{\mathfrak{g}_3}\right)}$ $\boxed{\underset{2}{\underline{b}} = c\left(\underset{11}{\mathfrak{g}_3} - \underset{31}{\mathrm{g}_1}\right)}$ $\boxed{\underset{3}{\underline{b}} = c\left(\underset{21}{\mathrm{g}_1} - \underset{11}{\mathfrak{g}_2}\right)}$

✓131 electromagnetic $\longrightarrow$ electrodynamic

✓146 electromagnetic $\longrightarrow$ electrodynamic

✓156 $\underset{11}{R'} \longrightarrow \underset{11}{R'}$ (in terms of g' s)

✓158 $R'_{14} \longrightarrow R'_{14}$ (in terms of g' s)

✓159 $R'_{44} \longrightarrow R'_{44}$ (in terms of g' s)

✓163 $R'_{44} \longrightarrow R'_{44}$ (in terms of g' s)

EQ (10.9) $-\frac{R'_1 R'_2 R'_3}{8\pi} \longrightarrow -\frac{R'_1 R'_2 R'_3 c^2}{8\pi v^2}$

✓167 EQ (10.12) $-\frac{R'_1 R'_2 R'_3}{8\pi} \longrightarrow -\frac{R'_1 R'_2 R'_3 c^2}{8\pi v^2}$

✓169 Now if think $\longrightarrow$ Now if we think

✓177 EQ (10.16) $-4hi\delta_{ij} \longrightarrow -\frac{4hi\delta_{ij} v^2}{c^2}$

✓180 $\mathscr{A}'_{11} \longrightarrow \mathscr{A}'_{11}$ (in terms of e' s)

✓181 $\mathscr{A}'_{14} \longrightarrow \mathscr{A}'_{14}$ (in terms of e' s)

✓182 $\mathscr{A}'_{44} \longrightarrow \mathscr{A}'_{44}$ (in terms of e' s)

✓185 $\mathscr{A}'_{44} \longrightarrow \mathscr{A}'_{44}$ (in terms of e' s)

EQ (10.26) $-\frac{R'_1 R'_2 R'_3}{8\pi} \longrightarrow -\frac{R'_1 R'_2 R'_3 c^2}{8\pi v^2}$

✓189 EQ (10.29) $-\frac{R'_1 R'_2 R'_3}{8\pi} \longrightarrow -\frac{R'_1 R'_2 R'_3 c^2}{8\pi v^2}$

✓196 EQ (10.32) $-4hi\delta_{ij} \longrightarrow -\frac{4hi\delta_{ij} v^2}{c^2}$

✓195 $-c^2 \rho_q \longrightarrow -c^2 \rho'_q$

✓199 chapter 11 $\longrightarrow$ chapter

✓201 portion were $\longrightarrow$ portion where

✓216 chapter 12 ⟶ chapter

it does allow ... ⟶ It does allow us to look at the things in the form of the second derivatives, terms like $\underset{\alpha\mu}{e_{\beta\nu}}$ exist.

as we do when we look at gravity in a LIF ⟶ as we did when we look at electromagnetism in a LIF

✓226 (Schultz 144) ⟶ (Schutz 144)

✓229 $\underset{\sigma}{\vec{\nabla}}\vec{R}$ Similar ⟶ $\underset{\sigma}{\vec{\nabla}}\vec{R}.$ Similar

✓237 commmon ⟶ common

✓247

$$\Big[\overset{\alpha}{R_\beta}\,\overset{\alpha}{\underset{\eta\delta}{\omega}}\,\overset{\eta}{\underset{\alpha\gamma}{\omega}} - \overset{\alpha}{R_\beta}\,\overset{\alpha}{\underset{\eta\gamma}{\omega}}\,\overset{\eta}{\underset{\alpha\delta}{\omega}} + \overset{\eta}{R_\beta}\,\overset{\alpha}{\underset{\eta\gamma}{\omega_\delta}} - \overset{\eta}{R_\beta}\,\overset{\alpha}{\underset{\eta\delta}{\omega_\gamma}} + \overset{\eta}{R}\,\overset{\alpha}{\underset{\eta\delta}{\omega}}\,\overset{\eta}{\underset{\alpha\gamma}{\omega}}\,\overset{\alpha}{\underset{\eta\beta}{\omega}}$$

$$- \overset{\eta}{R}\,\overset{\alpha}{\underset{\eta\gamma}{\omega}}\,\overset{\eta}{\underset{\alpha\delta}{\omega}}\,\overset{\alpha}{\underset{\eta\beta}{\omega}} + \overset{\alpha}{R}\,\overset{\alpha}{\underset{\eta\gamma}{\omega_\delta}}\,\overset{\eta}{\underset{\alpha\beta}{\omega}} - \overset{\alpha}{R}\,\overset{\alpha}{\underset{\eta\delta}{\omega_\gamma}}\,\overset{\eta}{\underset{\alpha\beta}{\omega}}\Big]\underset{\alpha}{\vec{e}}$$

$$\longrightarrow \Big[\overset{\alpha}{R_\beta}\,\overset{\alpha}{\underset{\eta\delta}{\omega}}\,\overset{\eta}{\underset{\alpha\gamma}{\omega}} - \overset{\alpha}{R_\beta}\,\overset{\alpha}{\underset{\eta\gamma}{\omega}}\,\overset{\eta}{\underset{\alpha\delta}{\omega}} + \overset{\eta}{R_\beta}\,\underset{\delta}{\vec{\nabla}}\,\overset{\alpha}{\underset{\eta\gamma}{\omega}} - \overset{\eta}{R_\beta}\,\underset{\gamma}{\vec{\nabla}}\,\overset{\alpha}{\underset{\eta\delta}{\omega}}$$

$$+ \overset{\eta}{R}\,\overset{\alpha}{\underset{\eta\delta}{\omega}}\,\overset{\eta}{\underset{\alpha\gamma}{\omega}}\,\overset{\alpha}{\underset{\eta\beta}{\omega}} - \overset{\eta}{R}\,\overset{\alpha}{\underset{\eta\gamma}{\omega}}\,\overset{\eta}{\underset{\alpha\delta}{\omega}}\,\overset{\alpha}{\underset{\eta\beta}{\omega}} + \overset{\alpha}{R}\left(\underset{\delta}{\vec{\nabla}}\,\overset{\alpha}{\underset{\eta\gamma}{\omega}}\right)\overset{\eta}{\underset{\alpha\beta}{\omega}}$$

$$- \overset{\alpha}{R}\left(\underset{\gamma}{\vec{\nabla}}\,\overset{\alpha}{\underset{\eta\delta}{\omega}}\right)\overset{\eta}{\underset{\alpha\beta}{\omega}} + \overset{\eta}{R}\left(\underset{\delta}{\vec{\nabla}}\,\underset{\gamma}{\vec{\nabla}}\,\overset{\alpha}{\underset{\eta\beta}{\omega}}\right) - \overset{\eta}{R}\left(\underset{\gamma}{\vec{\nabla}}\,\underset{\delta}{\vec{\nabla}}\,\overset{\alpha}{\underset{\eta\beta}{\omega}}\right)\Big]\underset{\alpha}{\vec{e}}$$

✓251 covector ⟶ covectors

✓261 covector ⟶ covectors

✓315 What happens when we are in a strong electromagnetic field where there is extreme curvature ? ⟶

What happens when we are in a strong electromagnetic field ?

(Schultz 144) ⟶ (Schutz 144)

✓316 covariant ⟶ partial

✓324 commmon ⟶ common

✓333 covector ⟶ covectors

✓362 problem (28) ⅂ = 0 ⟶ Γ = 0

problem (29) ⅂ = 0 ⟶ Γ = 0

✓371 problem (67) mylindrical ⟶ mherical

✓373 problem (76) equal zero ⟶ equal to zero

✓385 the ⟶ these

✓394 $\vec{R} = \underset{1}{R}\,\hat{i} \longrightarrow \vec{R} = \underset{1}{R}\,\hat{i} + \underset{2}{R}\,\hat{j}$

✓398 preperation ⟶ preparation

add

Landau, L.D.and E.M Lifshitz.<u>The Classical Theory of Fields</u>. Oxford : Butterworth – Heinemann, 2002.

✓399 elctric ⟶ electric

add to the definition of matelectric field ⟶ We have called it the matelectric field to emphasize that it is the GR equivalent to the electric field. This is the gravitational field.

✓400 move the definition of gravodynamics and gravoelectrodynamics to page 399