Guess about the equations in the form of gravity

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Abstract: By analogy with Maxwell's equations in electromagnetic form, we can find a group of equations in gravitational form that looks very interesting.

Key words: Charge, magnetic monopole, Maxwell equations, gravitational constant.

Maxwell's equations in electromagnetic form are equivalent to,

$$(\mathbf{E}) = \frac{1}{(4\pi)(\varepsilon_o)(r)^2} * (\varphi_{\mathbf{B}}) = \frac{(2\pi)(i)^3(\varphi_{\mathbf{E}})^3}{(4\pi)^2(R_\infty)^2(\varphi_{\mathbf{B}})^3} * (\varphi_{\mathbf{B}}) \ ,$$

$$\Rightarrow \begin{cases} 1, (\nabla\cdot\mathbf{E}) = \dfrac{1}{(\varepsilon_o)} * (\varphi_{\mathbf{B}}) \ , \\ 2, (\nabla\times\mathbf{E}) = -\dfrac{\partial \mathbf{B}}{\partial t} \ , \\ 3, (\nabla\cdot\mathbf{B}) = 0 \ , \\ 4, (\nabla\times\mathbf{B}) = (\mu_o) * (\mathbf{J_E}) + \dfrac{1}{(c)^2} * \dfrac{\partial \mathbf{E}}{\partial t} \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \left(\nabla\cdot\mathbf{E}\right) = \dfrac{1}{(\varepsilon_o)} * (\varphi_{\mathbf{B}}) \ , \\ 2, (\nabla\times\mathbf{E}) = -\dfrac{1}{(\varepsilon_o)} * (\mathbf{J_B}) - \dfrac{\partial \mathbf{B}}{\partial t} \ , \\ 3, \left(\nabla\cdot\mathbf{B}\right) = -(\mu_o) * (\varphi_{\mathbf{E}}) \ , \\ 4, (\nabla\times\mathbf{B}) = (\mu_o) * (\mathbf{J_E}) + \dfrac{1}{(c)^2} * \dfrac{\partial \mathbf{E}}{\partial t} \ , \\ 5, (i) * (\mathbf{E}) = (c) * (\mathbf{B}) , (i) * (\mathbf{J_E}) = (c) * (\mathbf{J_B}) \ , \ (i) * (\varphi_{\mathbf{E}}) = (c) * (\varphi_{\mathbf{B}}) \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \left(\nabla\cdot\mathbf{E}\right) = \dfrac{(2\pi)(i)^3(\varphi_{\mathbf{E}})^3}{(4\pi)(R_\infty)^2(\varphi_{\mathbf{B}})^3} * (\varphi_{\mathbf{B}}) \ , \\ 2, (\nabla\times\mathbf{E}) = -\dfrac{(2\pi)(i)^3(\varphi_{\mathbf{E}})^3}{(4\pi)(R_\infty)^2(\varphi_{\mathbf{B}})^3} * (\mathbf{J_B}) - \dfrac{\partial \mathbf{B}}{\partial t} \ , \\ 3, \left(\nabla\cdot\mathbf{B}\right) = -\dfrac{(2\pi)(i)(\varphi_{\mathbf{E}})}{(4\pi)(R_\infty)^2(\varphi_{\mathbf{B}})} * (\varphi_{\mathbf{E}}) \ , \\ 4, (\nabla\times\mathbf{B}) = \dfrac{(2\pi)(i)(\varphi_{\mathbf{E}})}{(4\pi)(R_\infty)^2(\varphi_{\mathbf{B}})} * (\mathbf{J_E}) - \dfrac{1}{(c)^2} * \dfrac{\partial \mathbf{E}}{\partial t} \ , \\ 5, (i) * (\mathbf{E}) = (c) * (\mathbf{B}) , (i) * (\mathbf{J_E}) = (c) * (\mathbf{J_B}) \ , \ (i) * (\varphi_{\mathbf{E}}) = (c) * (\varphi_{\mathbf{B}}) \ , \end{cases}$$

$$\Rightarrow \begin{cases} \mathbf{1}, (\nabla\cdot\mathbf{E}) = \dfrac{(\mathrm{i})}{(\varepsilon_{\mathbf{o}})(\mathrm{c})} * \left(\varphi_{\mathbf{E}}\right) , \\ \mathbf{2}, (\nabla\times\mathbf{E}) = -\dfrac{(\mathrm{i})}{(\varepsilon_{\mathbf{o}})(\mathrm{c})} * (\mathbf{J_E}) - \dfrac{(\mathrm{i})}{(\mathrm{c})} * \dfrac{\partial\mathbf{E}}{\partial \mathrm{t}} , \\ \mathbf{3}, (\nabla\cdot\mathbf{B}) = \dfrac{(\mathrm{i})}{(\varepsilon_{\mathbf{o}})(\mathrm{c})} * \left(\varphi_{\mathbf{B}}\right) , \\ 4, (\nabla\times\mathbf{B}) = -\dfrac{(\mathrm{i})}{(\varepsilon_{\mathbf{o}})(\mathrm{c})} * (\mathbf{J_B}) - \dfrac{(\mathrm{i})}{(\mathrm{c})} * \dfrac{\partial\mathbf{B}}{\partial \mathrm{t}} , \\ 5, (\mathrm{i}) * (\mathbf{E}) = (\mathrm{c}) * (\mathbf{B}) , (\mathrm{i}) * (\mathbf{J_E}) = (\mathrm{c}) * (\mathbf{J_B}) , (\mathrm{i}) * \left(\varphi_{\mathbf{E}}\right) = (\mathrm{c}) * \left(\varphi_{\mathbf{B}}\right) , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \left(\nabla\cdot\mathbf{E}\right) = \dfrac{(\mathrm{i})(2\pi)(\mathrm{i})^2(\varphi_{\mathbf{E}})^2}{(4\pi)(\mathrm{R}_\infty)^2(\varphi_{\mathbf{B}})^2} * (\varphi_{\mathbf{E}}) , \\ 2, (\nabla\times\mathbf{E}) = -\dfrac{(\mathrm{i})(2\pi)(\mathrm{i})^2(\varphi_{\mathbf{E}})^2}{(4\pi)(\mathrm{R}_\infty)^2(\varphi_{\mathbf{B}})^2} * (\mathbf{J_E}) - \dfrac{(\mathrm{i})}{(\mathrm{c})} * \dfrac{\partial\mathbf{E}}{\partial \mathrm{t}} , \\ 3, (\nabla\cdot\mathbf{B}) = \dfrac{(\mathrm{i})(2\pi)(\mathrm{i})^2(\varphi_{\mathbf{E}})^2}{(4\pi)(\mathrm{R}_\infty)^2(\varphi_{\mathbf{B}})^2} * (\varphi_{\mathbf{B}}) , \\ 4, (\nabla\times\mathbf{B}) = -\dfrac{(\mathrm{i})(2\pi)(\mathrm{i})^2(\varphi_{\mathbf{E}})^2}{(4\pi)(\mathrm{R}_\infty)^2(\varphi_{\mathbf{B}})^2} * (\mathbf{J_B}) - \dfrac{(\mathrm{i})}{(\mathrm{c})} * \dfrac{\partial\mathbf{B}}{\partial \mathrm{t}} , \\ 5, (\mathrm{i}) * (\mathbf{E}) = (\mathrm{c}) * (\mathbf{B}) , (\mathrm{i}) * (\mathbf{J_E}) = (\mathrm{c}) * (\mathbf{J_B}) , (\mathrm{i}) * (\varphi_{\mathbf{E}}) = (\mathrm{c}) * (\varphi_{\mathbf{B}}) , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \boldsymbol{\partial}^{\alpha}\boldsymbol{\partial}_{\alpha}\mathbf{A}_{\beta} = -\dfrac{(\mathrm{i})}{(\varepsilon_{\mathrm{o}})(\mathrm{c})}\mathbf{J}_{\beta} , \\ 2, \boldsymbol{\partial}^{\alpha}\mathbf{A}_{\alpha} = \dfrac{(\mathrm{i})}{(\varepsilon_{\mathrm{o}})(\mathrm{c})(\mathrm{c})^2}\mathbf{J}_{\alpha} , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \boldsymbol{\partial}^{\alpha}\boldsymbol{\partial}_{\alpha}\mathbf{A}_{\beta} = -\dfrac{(\mathrm{i})(2\pi)(\mathrm{i})^2(\varphi_{\mathbf{E}})^2}{(4\pi)(\mathrm{R}_\infty)^2(\varphi_{\mathbf{B}})^2}\mathbf{J}_{\beta} , \\ 2, \boldsymbol{\partial}^{\alpha}\mathbf{A}_{\alpha} = \dfrac{(\mathrm{i})(2\pi)}{(4\pi)(\mathrm{R}_\infty)^2}\mathbf{J}_{\alpha} , \end{cases}$$

Then, by analogy, and considering the relationship between gravity and electromagnetism, the equations in the form of gravity can have,

$$(\mathbf{D}) = \frac{(\mathrm{G_N})}{(\mathrm{r})^2} * (\varphi_{\mathbf{C}}) = \frac{(4\pi)(\mathrm{a}_0)^2(\mathrm{i})(\varphi_{\mathbf{D}})(2\pi)}{(\mathrm{r})^2(\varphi_{\mathbf{C}})} * (\varphi_{\mathbf{C}}) ,$$

$$\Rightarrow \begin{cases} 1, (\nabla\cdot\mathbf{D}) = (4\pi)(\mathrm{G_N}) * (\varphi_{\mathbf{C}}) , \\ 2, (\nabla\times\mathbf{D}) = -\dfrac{\partial\mathbf{C}}{\partial \mathrm{t}} , \\ 3, (\nabla\cdot\mathbf{C}) = 0 , \\ 4, (\nabla\times\mathbf{C}) = \dfrac{(4\pi)(\mathrm{G_N})}{(\mathrm{c})^2} * (\mathbf{J_D}) + \dfrac{1}{(\mathrm{c})^2} * \dfrac{\partial\mathbf{D}}{\partial \mathrm{t}} , \end{cases}$$

$$\Rightarrow \begin{cases} 1, (\nabla\cdot\mathbf{D}) = (4\pi)(\mathrm{G_N}) * (\varphi_{\mathbf{C}}) \ , \\ 2, (\nabla\times\mathbf{D}) = -(4\pi)(\mathrm{G_N}) * (\mathbf{J_C}) - \dfrac{\partial\mathbf{C}}{\partial t} \ , \\ 3, (\nabla\cdot\mathbf{C}) = -\dfrac{(4\pi)(\mathrm{G_N})}{(c)^2} * (\varphi_{\mathbf{D}}) \ , \\ 4, (\nabla\times\mathbf{C}) = \dfrac{(4\pi)(\mathrm{G_N})}{(c)^2} * (\mathbf{J_D}) + \dfrac{1}{(c)^2} * \dfrac{\partial\mathbf{D}}{\partial t} \ , \\ 5, (i) * (\mathbf{D}) = (c) * (\mathbf{C}) , (i) * (\mathbf{J_D}) = (c) * (\mathbf{J_C}) \ , \ (i) * (\varphi_{\mathbf{D}}) = (c) * (\varphi_{\mathbf{C}}) \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, (\nabla\cdot\mathbf{D}) = \dfrac{(4\pi)^2(a_0)^2(i)(\varphi_{\mathbf{D}})(2\pi)}{(\varphi_{\mathbf{C}})} * (\varphi_{\mathbf{C}}) \ , \\ 2, (\nabla\times\mathbf{D}) = -\dfrac{(4\pi)^2(a_0)^2(i)(\varphi_{\mathbf{D}})(2\pi)}{(\varphi_{\mathbf{C}})} * (\mathbf{J_C}) - \dfrac{\partial\mathbf{C}}{\partial t} \ , \\ 3, (\nabla\cdot\mathbf{C}) = -\dfrac{(4\pi)^2(a_0)^2(\varphi_{\mathbf{C}})(2\pi)}{(i)(\varphi_{\mathbf{D}})} * (\varphi_{\mathbf{D}}) \ , \\ 4, (\nabla\times\mathbf{C}) = \dfrac{(4\pi)^2(a_0)^2(\varphi_{\mathbf{C}})(2\pi)}{(i)(\varphi_{\mathbf{D}})} * (\mathbf{J_D}) + \dfrac{1}{(c)^2} * \dfrac{\partial\mathbf{D}}{\partial t} \ , \\ 5, (i) * (\mathbf{D}) = (c) * (\mathbf{C}) , (i) * (\mathbf{J_D}) = (c) * (\mathbf{J_C}) \ , \ (i) * (\varphi_{\mathbf{D}}) = (c) * (\varphi_{\mathbf{C}}) \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, (\nabla\cdot\mathbf{D}) = \dfrac{(i)(4\pi)(\mathrm{G_N})}{(c)} * (\varphi_{\mathbf{D}}) \ , \\ 2, (\nabla\times\mathbf{D}) = -\dfrac{(i)(4\pi)(\mathrm{G_N})}{(c)} * (\mathbf{J_D}) - \dfrac{(i)}{(c)} * \dfrac{\partial\mathbf{D}}{\partial t} \ , \\ 3, (\nabla\cdot\mathbf{C}) = \dfrac{(i)(4\pi)(\mathrm{G_N})}{(c)} * (\varphi_{\mathbf{C}}) \ , \\ 4, (\nabla\times\mathbf{C}) = -\dfrac{(i)(4\pi)(\mathrm{G_N})}{(c)} * (\mathbf{J_C}) - \dfrac{(i)}{(c)} * \dfrac{\partial\mathbf{C}}{\partial t} \ , \\ 5, (i) * (\mathbf{D}) = (c) * (\mathbf{C}) , (i) * (\mathbf{J_D}) = (c) * (\mathbf{J_C}) \ , \ (i) * (\varphi_{\mathbf{D}}) = (c) * (\varphi_{\mathbf{C}}) \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, (\nabla\cdot\mathbf{D}) = (i)(4\pi)^2(a_0)^2(2\pi) * (\varphi_{\mathbf{D}}) \ , \\ 2, (\nabla\times\mathbf{D}) = -(i)(4\pi)^2(a_0)^2(2\pi) * (\mathbf{J_D}) - \dfrac{(i)}{(c)} * \dfrac{\partial\mathbf{D}}{\partial t} \ , \\ 3, (\nabla\cdot\mathbf{C}) = (i)(4\pi)^2(a_0)^2(2\pi) * (\varphi_{\mathbf{C}}) \ , \\ 4, (\nabla\times\mathbf{C}) = -(i)(4\pi)^2(a_0)^2(2\pi) * (\mathbf{J_C}) - \dfrac{(i)}{(c)} * \dfrac{\partial\mathbf{C}}{\partial t} \ , \\ 5, (i) * (\mathbf{D}) = (c) * (\mathbf{C}) , (i) * (\mathbf{J_D}) = (c) * (\mathbf{J_C}) \ , \ (i) * (\varphi_{\mathbf{D}}) = (c) * (\varphi_{\mathbf{C}}) \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \boldsymbol{\partial}^{\gamma}\boldsymbol{\partial}_{\gamma}\mathbf{A}_{\delta} = -\dfrac{(i)(4\pi)(\mathrm{G_N})}{(c)}\mathbf{J}_{\delta} \ , \\ 2, \boldsymbol{\partial}^{\gamma}\mathbf{A}_{\gamma} = \dfrac{(i)(4\pi)(\mathrm{G_N})}{(c)(c)^2}\mathbf{J}_{\gamma} \ , \end{cases}$$

$$\Rightarrow \begin{cases} 1, \boldsymbol{\partial}^{\gamma}\boldsymbol{\partial}_{\gamma}\mathbf{A}_{\delta} = -\dfrac{(\mathrm{i})(4\pi)^2(2\pi)^2(\mathrm{a}_0)^2}{(2\pi)}\mathbf{J}_{\delta} \ , \\ 2, \boldsymbol{\partial}^{\gamma}\mathbf{A}_{\gamma} = \dfrac{(\mathrm{i})(4\pi)^2(2\pi)^2(\mathrm{a}_0)^2(\varphi_{\mathbf{C}})^2}{(2\pi)(\mathrm{i})^2(\varphi_{\mathbf{D}})^2}\mathbf{J}_{\gamma} \ , \end{cases}$$

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