Einstein Output

$G_{\mu\nu}$

$$G_{\mu\nu} = -\frac{1}{2}\, g_{\mu\nu}\, R + R_{\mu\nu}$$

$\delta G_{\mu\nu}$

$$\delta G_{\mu\nu} = -\frac{1}{2}\, h_{\mu\nu}\, R + \frac{1}{2}\, g_{\mu\nu}\, h^{\alpha\beta}\, R_{\alpha\beta} + \frac{1}{2}\, h_{\nu}{}^{\alpha}\, R_{\mu\alpha} + \frac{1}{2}\, h_{\mu}{}^{\alpha}\, R_{\nu\alpha} - h^{\alpha\beta}\, R_{\mu\alpha\nu\beta} + \frac{1}{2}\, \nabla_\alpha \nabla^\alpha h_{\mu\nu} + \frac{1}{2}\, g_{\mu\nu}\, \nabla_\beta \nabla_\alpha h^{\alpha\beta} - \frac{1}{2}\, g_{\mu\nu}\, \nabla_\beta \nabla^\beta h^{\alpha}{}_{\alpha} - \frac{1}{2}\, \nabla_\mu \nabla_\alpha h_{\nu}{}^{\alpha} - \frac{1}{2}\, \nabla_\nu \nabla_\alpha h_{\mu}{}^{\alpha} + \frac{1}{2}\, \nabla_\nu \nabla_\mu h^{\alpha}{}_{\alpha}$$

$\overline{\delta G_{\mu\nu}}(\bar{h}_{\mu\nu})$

No gauge:

$$\delta G_{\mu\nu}(h_{\mu\nu}) = -\frac{\eta^{\alpha\beta}\, \partial_\alpha\Omega\, \partial_\beta h_{\mu\nu}}{\Omega^3} + \frac{\eta^{\alpha\beta}\, \eta_{\mu\nu}\, \partial_\alpha h\, \partial_\beta\Omega}{\Omega^3} - \frac{2\, \eta^{\alpha\gamma}\, \eta^{\beta\eta}\, \eta_{\mu\nu}\, h_{\gamma\eta}\, \partial_\alpha\Omega\, \partial_\beta\Omega}{\Omega^4} + \frac{2\, \eta^{\alpha\beta}\, h_{\mu\nu}\, \partial_\alpha\Omega\, \partial_\beta\Omega}{\Omega^4} - \frac{\eta^{\alpha\beta}\, \eta_{\mu\nu}\, h\, \partial_\alpha\Omega\, \partial_\beta\Omega}{\Omega^4} + \frac{\eta^{\alpha\beta}\, \partial_\beta\partial_\alpha h_{\mu\nu}}{2\,\Omega^2} - \frac{\eta^{\alpha\beta}\, \eta_{\mu\nu}\, \partial_\beta\partial_\alpha h}{2\,\Omega^2} - \frac{3\, \eta^{\alpha\beta}\, h_{\mu\nu}\, \partial_\beta\partial_\alpha\Omega}{\Omega^3} + \frac{\eta^{\alpha\beta}\, \eta_{\mu\nu}\, h\, \partial_\beta\partial_\alpha\Omega}{\Omega^3} - \frac{\eta^{\alpha\beta}\, \partial_\beta\partial_\mu h_{\nu\alpha}}{2\,\Omega^2} - \frac{\eta^{\alpha\beta}\, \partial_\beta\partial_\nu h_{\mu\alpha}}{2\,\Omega^2} + \frac{\eta^{\alpha\beta}\, \eta^{\gamma\eta}\, \eta_{\mu\nu}\, \partial_\eta\partial_\beta h_{\alpha\gamma}}{2\,\Omega^2} + \frac{\eta^{\alpha\beta}\, \eta^{\gamma\eta}\, \eta_{\mu\nu}\, h_{\alpha\gamma}\, \partial_\eta\partial_\beta\Omega}{\Omega^3} - \frac{\eta^{\alpha\beta}\, h_{\nu\beta}\, \partial_\alpha\Omega\, \partial_\mu\Omega}{\Omega^4} + \frac{\eta^{\alpha\beta}\, \partial_\beta h_{\nu\alpha}\, \partial_\mu\Omega}{\Omega^3} + \frac{\eta^{\alpha\beta}\, h_{\nu\alpha}\, \partial_\mu\partial_\beta\Omega}{\Omega^3} - \frac{\partial_\mu\Omega\, \partial_\nu h}{\Omega^3} - \frac{\eta^{\alpha\beta}\, h_{\mu\beta}\, \partial_\alpha\Omega\, \partial_\nu\Omega}{\Omega^4} + \frac{\eta^{\alpha\beta}\, \partial_\beta h_{\mu\alpha}\, \partial_\nu\Omega}{\Omega^3} - \frac{\partial_\mu h\, \partial_\nu\Omega}{\Omega^3} + \frac{3\, h\, \partial_\mu\Omega\, \partial_\nu\Omega}{\Omega^4} + \frac{\eta^{\alpha\beta}\, h_{\mu\alpha}\, \partial_\nu\partial_\beta\Omega}{\Omega^3} + \frac{\partial_\nu\partial_\mu h}{2\,\Omega^2} - \frac{h\, \partial_\nu\partial_\mu\Omega}{\Omega^3}$$

Generalized gauge:

$$\eta^{\alpha\beta}\, \partial_\alpha h_{\nu\beta} = \eta^{\alpha\beta}\, \left(\frac{J\, h_{\alpha\nu}\, \partial_\beta\Omega}{\Omega} + P\, \partial_\nu h_{\alpha\beta} + \frac{Q\, h_{\alpha\beta}\, \partial_\nu\Omega}{\Omega}\right)$$

$$\delta G_{\mu\nu}(h_{\mu\nu}) = -\frac{\eta^{\alpha\beta}\,\partial_\alpha\Omega\,\partial_\beta h_{\mu\nu}}{\Omega^3}+\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\alpha h\,\partial_\beta\Omega}{\Omega^3}+\frac{J\,P\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\alpha h\,\partial_\beta\Omega}{2\,\Omega^3}+\frac{Q\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\alpha h\,\partial_\beta\Omega}{2\,\Omega^3}-$$
$$\frac{2\,\eta^{\alpha\gamma}\,\eta^{\beta\eta}\,\eta_{\mu\nu}\,h_{\gamma\eta}\,\partial_\alpha\Omega\,\partial_\beta\Omega}{\Omega^4}-\frac{J\,\eta^{\alpha\gamma}\,\eta^{\beta\eta}\,\eta_{\mu\nu}\,h_{\gamma\eta}\,\partial_\alpha\Omega\,\partial_\beta\Omega}{2\,\Omega^4}+\frac{J^2\,\eta^{\alpha\gamma}\,\eta^{\beta\eta}\,\eta_{\mu\nu}\,h_{\gamma\eta}\,\partial_\alpha\Omega\,\partial_\beta\Omega}{2\,\Omega^4}+$$
$$\frac{2\,\eta^{\alpha\beta}\,h_{\mu\nu}\,\partial_\alpha\Omega\,\partial_\beta\Omega}{\Omega^4}-\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\alpha\Omega\,\partial_\beta\Omega}{\Omega^4}-\frac{Q\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\alpha\Omega\,\partial_\beta\Omega}{2\,\Omega^4}+\frac{J\,Q\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\alpha\Omega\,\partial_\beta\Omega}{2\,\Omega^4}+$$
$$\frac{\eta^{\alpha\beta}\,\partial_\beta\partial_\alpha h_{\mu\nu}}{2\,\Omega^2}-\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\beta\partial_\alpha h}{2\,\Omega^2}+\frac{P\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\beta\partial_\alpha h}{2\,\Omega^2}-\frac{3\,\eta^{\alpha\beta}\,h_{\mu\nu}\,\partial_\beta\partial_\alpha\Omega}{\Omega^3}+\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\beta\partial_\alpha\Omega}{\Omega^3}+$$
$$\frac{Q\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\beta\partial_\alpha\Omega}{2\,\Omega^3}+\frac{\eta^{\alpha\beta}\,\eta^{\gamma\eta}\,\eta_{\mu\nu}\,h_{\alpha\gamma}\,\partial_\eta\partial_\beta\Omega}{\Omega^3}+\frac{J\,\eta^{\alpha\beta}\,\eta^{\gamma\eta}\,\eta_{\mu\nu}\,h_{\alpha\gamma}\,\partial_\eta\partial_\beta\Omega}{2\,\Omega^3}-\frac{J\,\eta^{\alpha\beta}\,\partial_\alpha\Omega\,\partial_\mu h_{\nu\beta}}{2\,\Omega^3}-$$
$$\frac{\eta^{\alpha\beta}\,h_{\nu\beta}\,\partial_\alpha\Omega\,\partial_\mu\Omega}{\Omega^4}+\frac{3\,J\,\eta^{\alpha\beta}\,h_{\nu\beta}\,\partial_\alpha\Omega\,\partial_\mu\Omega}{2\,\Omega^4}+\frac{\eta^{\alpha\beta}\,h_{\nu\alpha}\,\partial_\mu\partial_\beta\Omega}{\Omega^3}-\frac{J\,\eta^{\alpha\beta}\,h_{\nu\alpha}\,\partial_\mu\partial_\beta\Omega}{2\,\Omega^3}-\frac{J\,\eta^{\alpha\beta}\,\partial_\alpha\Omega\,\partial_\nu h_{\mu\beta}}{2\,\Omega^3}-$$
$$\frac{\partial_\mu\Omega\,\partial_\nu h}{\Omega^3}+\frac{P\,\partial_\mu\Omega\,\partial_\nu h}{\Omega^3}-\frac{Q\,\partial_\mu\Omega\,\partial_\nu h}{2\,\Omega^3}-\frac{\eta^{\alpha\beta}\,h_{\mu\beta}\,\partial_\alpha\Omega\,\partial_\nu\Omega}{\Omega^4}+\frac{3\,J\,\eta^{\alpha\beta}\,h_{\mu\beta}\,\partial_\alpha\Omega\,\partial_\nu\Omega}{2\,\Omega^4}-\frac{\partial_\mu h\,\partial_\nu\Omega}{\Omega^3}+\frac{P\,\partial_\mu h\,\partial_\nu\Omega}{\Omega^3}-$$
$$\frac{Q\,\partial_\mu h\,\partial_\nu\Omega}{2\,\Omega^3}+\frac{3\,h\,\partial_\mu\Omega\,\partial_\nu\Omega}{\Omega^4}+\frac{3\,Q\,h\,\partial_\mu\Omega\,\partial_\nu\Omega}{\Omega^4}+\frac{\eta^{\alpha\beta}\,h_{\mu\alpha}\,\partial_\nu\partial_\beta\Omega}{\Omega^3}-\frac{J\,\eta^{\alpha\beta}\,h_{\mu\alpha}\,\partial_\nu\partial_\beta\Omega}{2\,\Omega^3}+\frac{\partial_\nu\partial_\mu h}{2\,\Omega^2}-\frac{P\,\partial_\nu\partial_\mu h}{\Omega^2}-\frac{h\,\partial_\nu\partial_\mu\Omega}{\Omega^3}-$$
$$\frac{Q\,h\,\partial_\nu\partial_\mu\Omega}{\Omega^3}.$$

Using the conformally transformed harmonic gauge:

$$\eta^{\alpha\beta}\,\partial_\alpha h_{\nu\beta} = \frac{2\,\eta^{\alpha\beta}\,h_{\nu\beta}\,\partial_\alpha\Omega}{\Omega}+\frac{\partial_\nu h}{2}-\frac{h\,\partial_\nu\Omega}{\Omega}$$

(equivalent to barred quantities)

$$\nabla_\alpha h^\alpha{}_\nu-\frac{1}{2}\,\nabla_\nu h^\alpha{}_\alpha = \frac{4\,h^\alpha{}_\nu\,\partial_\alpha\Omega}{\Omega}-\frac{h\,\partial_\nu\Omega}{\Omega}$$

$$\delta G_{\mu\nu}(h_{\mu\nu}) =$$
$$-\frac{\eta^{\alpha\beta}\,\partial_\alpha\Omega\,\partial_\beta h_{\mu\nu}}{\Omega^3}+\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\alpha h\,\partial_\beta\Omega}{\Omega^3}-\frac{\eta^{\alpha\gamma}\,\eta^{\beta\eta}\,\eta_{\mu\nu}\,h_{\gamma\eta}\,\partial_\alpha\Omega\,\partial_\beta\Omega}{\Omega^4}+\frac{2\,\eta^{\alpha\beta}\,h_{\mu\nu}\,\partial_\alpha\Omega\,\partial_\beta\Omega}{\Omega^4}-$$
$$\frac{3\,\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\alpha\Omega\,\partial_\beta\Omega}{2\,\Omega^4}+\frac{\eta^{\alpha\beta}\,\partial_\beta\partial_\alpha h_{\mu\nu}}{2\,\Omega^2}-\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,\partial_\beta\partial_\alpha h}{4\,\Omega^2}-\frac{3\,\eta^{\alpha\beta}\,h_{\mu\nu}\,\partial_\beta\partial_\alpha\Omega}{\Omega^3}+\frac{\eta^{\alpha\beta}\,\eta_{\mu\nu}\,h\,\partial_\beta\partial_\alpha\Omega}{2\,\Omega^3}+$$
$$\frac{2\,\eta^{\alpha\beta}\,\eta^{\gamma\eta}\,\eta_{\mu\nu}\,h_{\alpha\gamma}\,\partial_\eta\partial_\beta\Omega}{\Omega^3}-\frac{\eta^{\alpha\beta}\,\partial_\alpha\Omega\,\partial_\mu h_{\nu\beta}}{\Omega^3}+\frac{2\,\eta^{\alpha\beta}\,h_{\nu\beta}\,\partial_\alpha\Omega\,\partial_\mu\Omega}{\Omega^4}-\frac{\eta^{\alpha\beta}\,\partial_\alpha\Omega\,\partial_\nu h_{\mu\beta}}{\Omega^3}+$$
$$\frac{2\,\eta^{\alpha\beta}\,h_{\mu\beta}\,\partial_\alpha\Omega\,\partial_\nu\Omega}{\Omega^4}$$

■ deSitter $\Omega = \frac{1}{(1-Ht)}$

deSitter in conformal harmonic gauge:

00	$-3H^2\,h_{00} - \frac{H^2 h}{2} + 3H\,\partial_0 h_{00} + H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{00} - \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{00} + \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{00} + \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{00} + \frac{\partial_3\partial_3 h}{4} + t\left(-3H^2\,\partial_0 h_{00} - H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{00} + \frac{1}{2}H\,\partial_0\partial_0 h - H\,\partial_1\partial_1 h_{00} - \frac{1}{2}H\,\partial_1\partial_1 h - H\,\partial_2\partial_2 h_{00} - \frac{1}{2}H\,\partial_2\partial_2 h - H\,\partial_3\partial_3 h_{00} - \frac{1}{2}H\,\partial_3\partial_3 h\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{00} - \frac{1}{4}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{00} + \frac{1}{4}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{00} + \frac{1}{4}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{00} + \frac{1}{4}H^2\,\partial_3\partial_3 h\right)$
11	$3H^2\,h_{00} + 4H^2\,h_{11} + \frac{H^2 h}{2} + H\,\partial_0 h_{11} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{11} + \frac{\partial_0\partial_0 h}{4} + 2H\,\partial_1 h_{01} + \frac{1}{2}\partial_1\partial_1 h_{11} - \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{11} - \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{11} - \frac{\partial_3\partial_3 h}{4} + t\left(-H^2\,\partial_0 h_{11} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{11} - \frac{1}{2}H\,\partial_0\partial_0 h - 2H^2\,\partial_1 h_{01} - H\,\partial_1\partial_1 h_{11} + \frac{1}{2}H\,\partial_1\partial_1 h - H\,\partial_2\partial_2 h_{11} + \frac{1}{2}H\,\partial_2\partial_2 h - H\,\partial_3\partial_3 h_{11} + \frac{1}{2}H\,\partial_3\partial_3 h\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{11} + \frac{1}{4}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{11} - \frac{1}{4}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{11} - \frac{1}{4}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{11} - \frac{1}{4}H^2\,\partial_3\partial_3 h\right)$
22	$3H^2\,h_{00} + 4H^2\,h_{22} + \frac{H^2 h}{2} + H\,\partial_0 h_{22} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{22} + \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{22} - \frac{\partial_1\partial_1 h}{4} + 2H\,\partial_2 h_{02} + \frac{1}{2}\partial_2\partial_2 h_{22} - \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{22} - \frac{\partial_3\partial_3 h}{4} + t\left(-H^2\,\partial_0 h_{22} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{22} - \frac{1}{2}H\,\partial_0\partial_0 h - H\,\partial_1\partial_1 h_{22} + \frac{1}{2}H\,\partial_1\partial_1 h - 2H^2\,\partial_2 h_{02} - H\,\partial_2\partial_2 h_{22} + \frac{1}{2}H\,\partial_2\partial_2 h - H\,\partial_3\partial_3 h_{22} + \frac{1}{2}H\,\partial_3\partial_3 h\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{22} + \frac{1}{4}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{22} - \frac{1}{4}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{22} - \frac{1}{4}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{22} - \frac{1}{4}H^2\,\partial_3\partial_3 h\right)$
33	$3H^2\,h_{00} + 4H^2\,h_{33} + \frac{H^2 h}{2} + H\,\partial_0 h_{33} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{33} + \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{33} - \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{33} - \frac{\partial_2\partial_2 h}{4} + 2H\,\partial_3 h_{03} + \frac{1}{2}\partial_3\partial_3 h_{33} - \frac{\partial_3\partial_3 h}{4} + t\left(-H^2\,\partial_0 h_{33} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{33} - \frac{1}{2}H\,\partial_0\partial_0 h - H\,\partial_1\partial_1 h_{33} + \frac{1}{2}H\,\partial_1\partial_1 h - H\,\partial_2\partial_2 h_{33} + \frac{1}{2}H\,\partial_2\partial_2 h - 2H^2\,\partial_3 h_{03} - H\,\partial_3\partial_3 h_{33} + \frac{1}{2}H\,\partial_3\partial_3 h\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{33} + \frac{1}{4}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{33} - \frac{1}{4}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{33} - \frac{1}{4}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{33} - \frac{1}{4}H^2\,\partial_3\partial_3 h\right)$
01	$2H^2\,h_{01} + 2H\,\partial_0 h_{01} - \frac{1}{2}\partial_0\partial_0 h_{01} + H\,\partial_1 h_{00} + \frac{1}{2}\partial_1\partial_1 h_{01} + \frac{1}{2}\partial_2\partial_2 h_{01} + \frac{1}{2}\partial_3\partial_3 h_{01} + t\left(-2H^2\,\partial_0 h_{01} + H\,\partial_0\partial_0 h_{01} - H^2\,\partial_1 h_{00} - H\,\partial_1\partial_1 h_{01} - H\,\partial_2\partial_2 h_{01} - H\,\partial_3\partial_3 h_{01}\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{01} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{01} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{01} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{01}\right)$
02	$2H^2\,h_{02} + 2H\,\partial_0 h_{02} - \frac{1}{2}\partial_0\partial_0 h_{02} + \frac{1}{2}\partial_1\partial_1 h_{02} + H\,\partial_2 h_{00} + \frac{1}{2}\partial_2\partial_2 h_{02} + \frac{1}{2}\partial_3\partial_3 h_{02} + t\left(-2H^2\,\partial_0 h_{02} + H\,\partial_0\partial_0 h_{02} - H\,\partial_1\partial_1 h_{02} - H^2\,\partial_2 h_{00} - H\,\partial_2\partial_2 h_{02} - H\,\partial_3\partial_3 h_{02}\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{02} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{02} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{02} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{02}\right)$
03	$2H^2\,h_{03} + 2H\,\partial_0 h_{03} - \frac{1}{2}\partial_0\partial_0 h_{03} + \frac{1}{2}\partial_1\partial_1 h_{03} + \frac{1}{2}\partial_2\partial_2 h_{03} + H\,\partial_3 h_{00} + \frac{1}{2}\partial_3\partial_3 h_{03} + t\left(-2H^2\,\partial_0 h_{03} + H\,\partial_0\partial_0 h_{03} - H\,\partial_1\partial_1 h_{03} - H\,\partial_2\partial_2 h_{03} - H^2\,\partial_3 h_{00} - H\,\partial_3\partial_3 h_{03}\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{03} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{03} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{03} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{03}\right)$
12	$4H^2\,h_{12} + H\,\partial_0 h_{12} - \frac{1}{2}\partial_0\partial_0 h_{12} + H\,\partial_1 h_{02} + \frac{1}{2}\partial_1\partial_1 h_{12} + H\,\partial_2 h_{01} + \frac{1}{2}\partial_2\partial_2 h_{12} + \frac{1}{2}\partial_3\partial_3 h_{12} + t\left(-H^2\,\partial_0 h_{12} + H\,\partial_0\partial_0 h_{12} - H^2\,\partial_1 h_{02} - H\,\partial_1\partial_1 h_{12} - H^2\,\partial_2 h_{01} - H\,\partial_2\partial_2 h_{12} - H\,\partial_3\partial_3 h_{12}\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{12} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{12} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{12} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{12}\right)$
13	$4H^2\,h_{13} + H\,\partial_0 h_{13} - \frac{1}{2}\partial_0\partial_0 h_{13} + H\,\partial_1 h_{03} + \frac{1}{2}\partial_1\partial_1 h_{13} + \frac{1}{2}\partial_2\partial_2 h_{13} + H\,\partial_3 h_{01} + \frac{1}{2}\partial_3\partial_3 h_{13} + t\left(-H^2\,\partial_0 h_{13} + H\,\partial_0\partial_0 h_{13} - H^2\,\partial_1 h_{03} - H\,\partial_1\partial_1 h_{13} - H\,\partial_2\partial_2 h_{13} - H^2\,\partial_3 h_{01} - H\,\partial_3\partial_3 h_{13}\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{13} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{13} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{13} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{13}\right)$
23	$4H^2\,h_{23} + H\,\partial_0 h_{23} - \frac{1}{2}\partial_0\partial_0 h_{23} + \frac{1}{2}\partial_1\partial_1 h_{23} + H\,\partial_2 h_{03} + \frac{1}{2}\partial_2\partial_2 h_{23} + H\,\partial_3 h_{02} + \frac{1}{2}\partial_3\partial_3 h_{23} + t\left(-H^2\,\partial_0 h_{23} + H\,\partial_0\partial_0 h_{23} - H\,\partial_1\partial_1 h_{23} - H^2\,\partial_2 h_{03} - H\,\partial_2\partial_2 h_{23} - H^2\,\partial_3 h_{02} - H\,\partial_3\partial_3 h_{23}\right) + t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{23} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{23} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{23} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{23}\right)$

In the limit $H \to 0$,

00	$-\frac{1}{2}\partial_0\partial_0 h_{00} - \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{00} + \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{00} + \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{00} + \frac{\partial_3\partial_3 h}{4}$
11	$-\frac{1}{2}\partial_0\partial_0 h_{11} + \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{11} - \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{11} - \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{11} - \frac{\partial_3\partial_3 h}{4}$
22	$-\frac{1}{2}\partial_0\partial_0 h_{22} + \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{22} - \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{22} - \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{22} - \frac{\partial_3\partial_3 h}{4}$
33	$-\frac{1}{2}\partial_0\partial_0 h_{33} + \frac{\partial_0\partial_0 h}{4} + \frac{1}{2}\partial_1\partial_1 h_{33} - \frac{\partial_1\partial_1 h}{4} + \frac{1}{2}\partial_2\partial_2 h_{33} - \frac{\partial_2\partial_2 h}{4} + \frac{1}{2}\partial_3\partial_3 h_{33} - \frac{\partial_3\partial_3 h}{4}$
01	$-\frac{1}{2}\partial_0\partial_0 h_{01} + \frac{1}{2}\partial_1\partial_1 h_{01} + \frac{1}{2}\partial_2\partial_2 h_{01} + \frac{1}{2}\partial_3\partial_3 h_{01}$
02	$-\frac{1}{2}\partial_0\partial_0 h_{02} + \frac{1}{2}\partial_1\partial_1 h_{02} + \frac{1}{2}\partial_2\partial_2 h_{02} + \frac{1}{2}\partial_3\partial_3 h_{02}$
03	$-\frac{1}{2}\partial_0\partial_0 h_{03} + \frac{1}{2}\partial_1\partial_1 h_{03} + \frac{1}{2}\partial_2\partial_2 h_{03} + \frac{1}{2}\partial_3\partial_3 h_{03}$
12	$-\frac{1}{2}\partial_0\partial_0 h_{12} + \frac{1}{2}\partial_1\partial_1 h_{12} + \frac{1}{2}\partial_2\partial_2 h_{12} + \frac{1}{2}\partial_3\partial_3 h_{12}$
13	$-\frac{1}{2}\partial_0\partial_0 h_{13} + \frac{1}{2}\partial_1\partial_1 h_{13} + \frac{1}{2}\partial_2\partial_2 h_{13} + \frac{1}{2}\partial_3\partial_3 h_{13}$
23	$-\frac{1}{2}\partial_0\partial_0 h_{23} + \frac{1}{2}\partial_1\partial_1 h_{23} + \frac{1}{2}\partial_2\partial_2 h_{23} + \frac{1}{2}\partial_3\partial_3 h_{23}$

Compare to gauge where J=P=Q=0 (diagonal up to trace terms)

00	$2H^2\,h_{00} + 2H^2\,h + H\,\partial_0 h_{00} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{00} + \frac{1}{2}\partial_1\partial_1 h_{00} + \frac{\partial_1\partial_1 h}{2} + \frac{1}{2}\partial_2\partial_2 h_{00} + \frac{\partial_2\partial_2 h}{2} + \frac{1}{2}\partial_3\partial_3 h_{00} + \frac{\partial_3\partial_3 h}{2} +$ $t\left(-H^2\,\partial_0 h_{00} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{00} - H\,\partial_1\partial_1 h_{00} - H\,\partial_1\partial_1 h - H\,\partial_2\partial_2 h_{00} - H\,\partial_2\partial_2 h - H\,\partial_3\partial_3 h_{00} - H\,\partial_3\partial_3 h\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{00} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{00} + \frac{1}{2}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{00} + \frac{1}{2}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{00} + \frac{1}{2}H^2\,\partial_3\partial_3 h\right)$
11	$4H^2\,h_{11} - H^2\,h + H\,\partial_0 h_{11} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{11} + \frac{\partial_0\partial_0 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{11} + \frac{1}{2}\partial_2\partial_2 h_{11} - \frac{\partial_2\partial_2 h}{2} + \frac{1}{2}\partial_3\partial_3 h_{11} - \frac{\partial_3\partial_3 h}{2} +$ $t\left(-H^2\,\partial_0 h_{11} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{11} - H\,\partial_0\partial_0 h - H\,\partial_1\partial_1 h_{11} - H\,\partial_2\partial_2 h_{11} + H\,\partial_2\partial_2 h - H\,\partial_3\partial_3 h_{11} + H\,\partial_3\partial_3 h\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{11} + \frac{1}{2}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{11} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{11} - \frac{1}{2}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{11} - \frac{1}{2}H^2\,\partial_3\partial_3 h\right)$
22	$4H^2\,h_{22} - H^2\,h + H\,\partial_0 h_{22} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{22} + \frac{\partial_0\partial_0 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{22} - \frac{\partial_1\partial_1 h}{2} + \frac{1}{2}\partial_2\partial_2 h_{22} + \frac{1}{2}\partial_3\partial_3 h_{22} - \frac{\partial_3\partial_3 h}{2} +$ $t\left(-H^2\,\partial_0 h_{22} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{22} - H\,\partial_0\partial_0 h - H\,\partial_1\partial_1 h_{22} + H\,\partial_1\partial_1 h - H\,\partial_2\partial_2 h_{22} - H\,\partial_3\partial_3 h_{22} + H\,\partial_3\partial_3 h\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{22} + \frac{1}{2}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{22} - \frac{1}{2}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{22} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{22} - \frac{1}{2}H^2\,\partial_3\partial_3 h\right)$
33	$4H^2\,h_{33} - H^2\,h + H\,\partial_0 h_{33} - H\,\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{33} + \frac{\partial_0\partial_0 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{33} - \frac{\partial_1\partial_1 h}{2} + \frac{1}{2}\partial_2\partial_2 h_{33} - \frac{\partial_2\partial_2 h}{2} + \frac{1}{2}\partial_3\partial_3 h_{33} +$ $t\left(-H^2\,\partial_0 h_{33} + H^2\,\partial_0 h + H\,\partial_0\partial_0 h_{33} - H\,\partial_0\partial_0 h - H\,\partial_1\partial_1 h_{33} + H\,\partial_1\partial_1 h - H\,\partial_2\partial_2 h_{33} + H\,\partial_2\partial_2 h - H\,\partial_3\partial_3 h_{33}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{33} + \frac{1}{2}H^2\,\partial_0\partial_0 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{33} - \frac{1}{2}H^2\,\partial_1\partial_1 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{33} - \frac{1}{2}H^2\,\partial_2\partial_2 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{33}\right)$
01	$3H^2\,h_{01} + H\,\partial_0 h_{01} - \frac{1}{2}\partial_0\partial_0 h_{01} + \frac{\partial_0\partial_1 h}{2} - H\,\partial_1 h + \frac{1}{2}\partial_1\partial_1 h_{01} + \frac{1}{2}\partial_2\partial_2 h_{01} + \frac{1}{2}\partial_3\partial_3 h_{01} +$ $t\left(-H^2\,\partial_0 h_{01} + H\,\partial_0\partial_0 h_{01} - H\,\partial_0\partial_1 h + H^2\,\partial_1 h - H\,\partial_1\partial_1 h_{01} - H\,\partial_2\partial_2 h_{01} - H\,\partial_3\partial_3 h_{01}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{01} + \frac{1}{2}H^2\,\partial_0\partial_1 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{01} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{01} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{01}\right)$
02	$3H^2\,h_{02} + H\,\partial_0 h_{02} - \frac{1}{2}\partial_0\partial_0 h_{02} + \frac{\partial_0\partial_2 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{02} - H\,\partial_2 h + \frac{1}{2}\partial_2\partial_2 h_{02} + \frac{1}{2}\partial_3\partial_3 h_{02} +$ $t\left(-H^2\,\partial_0 h_{02} + H\,\partial_0\partial_0 h_{02} - H\,\partial_0\partial_2 h - H\,\partial_1\partial_1 h_{02} + H^2\,\partial_2 h - H\,\partial_2\partial_2 h_{02} - H\,\partial_3\partial_3 h_{02}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{02} + \frac{1}{2}H^2\,\partial_0\partial_2 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{02} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{02} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{02}\right)$
03	$3H^2\,h_{03} + H\,\partial_0 h_{03} - \frac{1}{2}\partial_0\partial_0 h_{03} + \frac{\partial_0\partial_3 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{03} + \frac{1}{2}\partial_2\partial_2 h_{03} - H\,\partial_3 h + \frac{1}{2}\partial_3\partial_3 h_{03} +$ $t\left(-H^2\,\partial_0 h_{03} + H\,\partial_0\partial_0 h_{03} - H\,\partial_0\partial_3 h - H\,\partial_1\partial_1 h_{03} - H\,\partial_2\partial_2 h_{03} + H^2\,\partial_3 h - H\,\partial_3\partial_3 h_{03}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{03} + \frac{1}{2}H^2\,\partial_0\partial_3 h + \frac{1}{2}H^2\,\partial_1\partial_1 h_{03} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{03} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{03}\right)$
12	$4H^2\,h_{12} + H\,\partial_0 h_{12} - \frac{1}{2}\partial_0\partial_0 h_{12} + \frac{1}{2}\partial_1\partial_1 h_{12} + \frac{\partial_1\partial_2 h}{2} + \frac{1}{2}\partial_2\partial_2 h_{12} + \frac{1}{2}\partial_3\partial_3 h_{12} +$ $t\left(-H^2\,\partial_0 h_{12} + H\,\partial_0\partial_0 h_{12} - H\,\partial_1\partial_1 h_{12} - H\,\partial_1\partial_2 h - H\,\partial_2\partial_2 h_{12} - H\,\partial_3\partial_3 h_{12}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{12} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{12} + \frac{1}{2}H^2\,\partial_1\partial_2 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{12} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{12}\right)$
13	$4H^2\,h_{13} + H\,\partial_0 h_{13} - \frac{1}{2}\partial_0\partial_0 h_{13} + \frac{1}{2}\partial_1\partial_1 h_{13} + \frac{\partial_1\partial_3 h}{2} + \frac{1}{2}\partial_2\partial_2 h_{13} + \frac{1}{2}\partial_3\partial_3 h_{13} +$ $t\left(-H^2\,\partial_0 h_{13} + H\,\partial_0\partial_0 h_{13} - H\,\partial_1\partial_1 h_{13} - H\,\partial_1\partial_3 h - H\,\partial_2\partial_2 h_{13} - H\,\partial_3\partial_3 h_{13}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{13} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{13} + \frac{1}{2}H^2\,\partial_1\partial_3 h + \frac{1}{2}H^2\,\partial_2\partial_2 h_{13} + \frac{1}{2}H^2\,\partial_3\partial_3 h_{13}\right)$
23	$4H^2\,h_{23} + H\,\partial_0 h_{23} - \frac{1}{2}\partial_0\partial_0 h_{23} + \frac{1}{2}\partial_1\partial_1 h_{23} + \frac{1}{2}\partial_2\partial_2 h_{23} + \frac{\partial_2\partial_3 h}{2} + \frac{1}{2}\partial_3\partial_3 h_{23} +$ $t\left(-H^2\,\partial_0 h_{23} + H\,\partial_0\partial_0 h_{23} - H\,\partial_1\partial_1 h_{23} - H\,\partial_2\partial_2 h_{23} - H\,\partial_2\partial_3 h - H\,\partial_3\partial_3 h_{23}\right) +$ $t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{23} + \frac{1}{2}H^2\,\partial_1\partial_1 h_{23} + \frac{1}{2}H^2\,\partial_2\partial_2 h_{23} + \frac{1}{2}H^2\,\partial_2\partial_3 h + \frac{1}{2}H^2\,\partial_3\partial_3 h_{23}\right)$

This has same flat space limit as conformal harmonic gauge.

Ω(t)

Conformal harmonic gauge:

00	$-\frac{\partial_0\partial_0 h_{00}}{2\Omega[t]^2}-\frac{\partial_0\partial_0 h}{4\Omega[t]^2}+\frac{\partial_1\partial_1 h_{00}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h}{4\Omega[t]^2}+\frac{\partial_2\partial_2 h_{00}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h}{4\Omega[t]^2}+\frac{\partial_3\partial_3 h_{00}}{2\Omega[t]^2}+$ $\frac{\partial_3\partial_3 h}{4\Omega[t]^2}+\frac{3\,\partial_0 h_{00}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{5\,h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{3\,h\,\Omega'[t]^2}{2\Omega[t]^4}+\frac{h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{h\,\Omega''[t]}{2\Omega[t]^3}$
11	$-\frac{\partial_0\partial_0 h_{11}}{2\Omega[t]^2}+\frac{\partial_0\partial_0 h}{4\Omega[t]^2}+\frac{\partial_1\partial_1 h_{11}}{2\Omega[t]^2}-\frac{\partial_1\partial_1 h}{4\Omega[t]^2}+\frac{\partial_2\partial_2 h_{11}}{2\Omega[t]^2}-\frac{\partial_2\partial_2 h}{4\Omega[t]^2}+\frac{\partial_3\partial_3 h_{11}}{2\Omega[t]^2}-\frac{\partial_3\partial_3 h}{4\Omega[t]^2}+\frac{\partial_0 h_{11}\,\Omega'[t]}{\Omega[t]^3}-$ $\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}+\frac{2\,\partial_1 h_{01}\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2\,h_{11}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h\,\Omega'[t]^2}{2\Omega[t]^4}+\frac{2\,h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3\,h_{11}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{2\Omega[t]^3}$
22	$-\frac{\partial_0\partial_0 h_{22}}{2\Omega[t]^2}+\frac{\partial_0\partial_0 h}{4\Omega[t]^2}+\frac{\partial_1\partial_1 h_{22}}{2\Omega[t]^2}-\frac{\partial_1\partial_1 h}{4\Omega[t]^2}+\frac{\partial_2\partial_2 h_{22}}{2\Omega[t]^2}-\frac{\partial_2\partial_2 h}{4\Omega[t]^2}+\frac{\partial_3\partial_3 h_{22}}{2\Omega[t]^2}-\frac{\partial_3\partial_3 h}{4\Omega[t]^2}+\frac{\partial_0 h_{22}\,\Omega'[t]}{\Omega[t]^3}-$ $\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}+\frac{2\,\partial_2 h_{02}\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2\,h_{22}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h\,\Omega'[t]^2}{2\Omega[t]^4}+\frac{2\,h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3\,h_{22}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{2\Omega[t]^3}$
33	$-\frac{\partial_0\partial_0 h_{33}}{2\Omega[t]^2}+\frac{\partial_0\partial_0 h}{4\Omega[t]^2}+\frac{\partial_1\partial_1 h_{33}}{2\Omega[t]^2}-\frac{\partial_1\partial_1 h}{4\Omega[t]^2}+\frac{\partial_2\partial_2 h_{33}}{2\Omega[t]^2}-\frac{\partial_2\partial_2 h}{4\Omega[t]^2}+\frac{\partial_3\partial_3 h_{33}}{2\Omega[t]^2}-\frac{\partial_3\partial_3 h}{4\Omega[t]^2}+\frac{\partial_0 h_{33}\,\Omega'[t]}{\Omega[t]^3}-$ $\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}+\frac{2\,\partial_3 h_{03}\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2\,h_{33}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h\,\Omega'[t]^2}{2\Omega[t]^4}+\frac{2\,h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3\,h_{33}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{2\Omega[t]^3}$
01	$-\frac{\partial_0\partial_0 h_{01}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{01}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{01}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{01}}{2\Omega[t]^2}+\frac{2\,\partial_0 h_{01}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_1 h_{00}\,\Omega'[t]}{\Omega[t]^3}-\frac{4\,h_{01}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{01}\,\Omega''[t]}{\Omega[t]^3}$
02	$-\frac{\partial_0\partial_0 h_{02}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{02}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{02}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{02}}{2\Omega[t]^2}+\frac{2\,\partial_0 h_{02}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_2 h_{00}\,\Omega'[t]}{\Omega[t]^3}-\frac{4\,h_{02}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{02}\,\Omega''[t]}{\Omega[t]^3}$
03	$-\frac{\partial_0\partial_0 h_{03}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{03}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{03}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{03}}{2\Omega[t]^2}+\frac{2\,\partial_0 h_{03}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_3 h_{00}\,\Omega'[t]}{\Omega[t]^3}-\frac{4\,h_{03}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{03}\,\Omega''[t]}{\Omega[t]^3}$
12	$-\frac{\partial_0\partial_0 h_{12}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{12}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{12}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{12}}{2\Omega[t]^2}+\frac{\partial_0 h_{12}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_1 h_{02}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_2 h_{01}\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{12}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{12}\,\Omega''[t]}{\Omega[t]^3}$
13	$-\frac{\partial_0\partial_0 h_{13}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{13}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{13}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{13}}{2\Omega[t]^2}+\frac{\partial_0 h_{13}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_1 h_{03}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_3 h_{01}\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{13}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{13}\,\Omega''[t]}{\Omega[t]^3}$
23	$-\frac{\partial_0\partial_0 h_{23}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{23}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{23}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{23}}{2\Omega[t]^2}+\frac{\partial_0 h_{23}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_2 h_{03}\,\Omega'[t]}{\Omega[t]^3}+\frac{\partial_3 h_{02}\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{23}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{23}\,\Omega''[t]}{\Omega[t]^3}$

“Transverse” gauge (J=Q=P=0):

00	$-\frac{\partial_0\partial_0 h_{00}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{00}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{00}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h}{2\Omega[t]^2}+$ $\frac{\partial_3\partial_3 h_{00}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h}{2\Omega[t]^2}+\frac{\partial_0 h_{00}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}+\frac{2h_{00}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2h\,\Omega'[t]^2}{\Omega[t]^4}$
11	$-\frac{\partial_0\partial_0 h_{11}}{2\Omega[t]^2}+\frac{\partial_0\partial_0 h}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{11}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{11}}{2\Omega[t]^2}-\frac{\partial_2\partial_2 h}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{11}}{2\Omega[t]^2}-\frac{\partial_3\partial_3 h}{2\Omega[t]^2}+\frac{\partial_0 h_{11}\,\Omega'[t]}{\Omega[t]^3}-$ $\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{2h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2h_{11}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3h_{11}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{\Omega[t]^3}$
22	$-\frac{\partial_0\partial_0 h_{22}}{2\Omega[t]^2}+\frac{\partial_0\partial_0 h}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{22}}{2\Omega[t]^2}-\frac{\partial_1\partial_1 h}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{22}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{22}}{2\Omega[t]^2}-\frac{\partial_3\partial_3 h}{2\Omega[t]^2}+\frac{\partial_0 h_{22}\,\Omega'[t]}{\Omega[t]^3}-$ $\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{2h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2h_{22}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3h_{22}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{\Omega[t]^3}$
33	$-\frac{\partial_0\partial_0 h_{33}}{2\Omega[t]^2}+\frac{\partial_0\partial_0 h}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{33}}{2\Omega[t]^2}-\frac{\partial_1\partial_1 h}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{33}}{2\Omega[t]^2}-\frac{\partial_2\partial_2 h}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{33}}{2\Omega[t]^2}+\frac{\partial_0 h_{33}\,\Omega'[t]}{\Omega[t]^3}-$ $\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{2h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2h_{33}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3h_{33}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{\Omega[t]^3}$
01	$-\frac{\partial_0\partial_0 h_{01}}{2\Omega[t]^2}+\frac{\partial_0\partial_1 h}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{01}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{01}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{01}}{2\Omega[t]^2}+\frac{\partial_0 h_{01}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_1 h\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{01}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2h_{01}\,\Omega''[t]}{\Omega[t]^3}$
02	$-\frac{\partial_0\partial_0 h_{02}}{2\Omega[t]^2}+\frac{\partial_0\partial_2 h}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{02}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{02}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{02}}{2\Omega[t]^2}+\frac{\partial_0 h_{02}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_2 h\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{02}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2h_{02}\,\Omega''[t]}{\Omega[t]^3}$
03	$-\frac{\partial_0\partial_0 h_{03}}{2\Omega[t]^2}+\frac{\partial_0\partial_3 h}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{03}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{03}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{03}}{2\Omega[t]^2}+\frac{\partial_0 h_{03}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_3 h\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{03}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2h_{03}\,\Omega''[t]}{\Omega[t]^3}$
12	$-\frac{\partial_0\partial_0 h_{12}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{12}}{2\Omega[t]^2}+\frac{\partial_1\partial_2 h}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{12}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{12}}{2\Omega[t]^2}+\frac{\partial_0 h_{12}\,\Omega'[t]}{\Omega[t]^3}-\frac{2h_{12}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3h_{12}\,\Omega''[t]}{\Omega[t]^3}$
13	$-\frac{\partial_0\partial_0 h_{13}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{13}}{2\Omega[t]^2}+\frac{\partial_1\partial_3 h}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{13}}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{13}}{2\Omega[t]^2}+\frac{\partial_0 h_{13}\,\Omega'[t]}{\Omega[t]^3}-\frac{2h_{13}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3h_{13}\,\Omega''[t]}{\Omega[t]^3}$
23	$-\frac{\partial_0\partial_0 h_{23}}{2\Omega[t]^2}+\frac{\partial_1\partial_1 h_{23}}{2\Omega[t]^2}+\frac{\partial_2\partial_2 h_{23}}{2\Omega[t]^2}+\frac{\partial_2\partial_3 h}{2\Omega[t]^2}+\frac{\partial_3\partial_3 h_{23}}{2\Omega[t]^2}+\frac{\partial_0 h_{23}\,\Omega'[t]}{\Omega[t]^3}-\frac{2h_{23}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3h_{23}\,\Omega''[t]}{\Omega[t]^3}$

Ω(x)

“Transverse” gauge (J=Q=P=0):

00	$-\frac{\partial_0\partial_0 h_{00}}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{00}}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{00}}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{00}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h}{2\Omega[x]^2}-\frac{\partial_1 h_{00}\,\Omega'[x]}{\Omega[x]^3}-$ $\frac{\partial_1 h\,\Omega'[x]}{\Omega[x]^3}+\frac{2h_{00}\,\Omega'[x]^2}{\Omega[x]^4}+\frac{2h_{11}\,\Omega'[x]^2}{\Omega[x]^4}+\frac{h\,\Omega'[x]^2}{\Omega[x]^4}-\frac{3h_{00}\,\Omega''[x]}{\Omega[x]^3}-\frac{h_{11}\,\Omega''[x]}{\Omega[x]^3}-\frac{h\,\Omega''[x]}{\Omega[x]^3}$
11	$-\frac{\partial_0\partial_0 h_{11}}{2\Omega[x]^2}+\frac{\partial_0\partial_0 h}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{11}}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{11}}{2\Omega[x]^2}-\frac{\partial_2\partial_2 h}{2\Omega[x]^2}+$ $\frac{\partial_3\partial_3 h_{11}}{2\Omega[x]^2}-\frac{\partial_3\partial_3 h}{2\Omega[x]^2}-\frac{\partial_1 h_{11}\,\Omega'[x]}{\Omega[x]^3}-\frac{\partial_1 h\,\Omega'[x]}{\Omega[x]^3}-\frac{2h_{11}\,\Omega'[x]^2}{\Omega[x]^4}+\frac{2h\,\Omega'[x]^2}{\Omega[x]^4}$
22	$-\frac{\partial_0\partial_0 h_{22}}{2\Omega[x]^2}+\frac{\partial_0\partial_0 h}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{22}}{2\Omega[x]^2}-\frac{\partial_1\partial_1 h}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{22}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{22}}{2\Omega[x]^2}-\frac{\partial_3\partial_3 h}{2\Omega[x]^2}-\frac{\partial_1 h_{22}\,\Omega'[x]}{\Omega[x]^3}+$ $\frac{\partial_1 h\,\Omega'[x]}{\Omega[x]^3}-\frac{2h_{11}\,\Omega'[x]^2}{\Omega[x]^4}+\frac{2h_{22}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{h\,\Omega'[x]^2}{\Omega[x]^4}+\frac{h_{11}\,\Omega''[x]}{\Omega[x]^3}-\frac{3h_{22}\,\Omega''[x]}{\Omega[x]^3}+\frac{h\,\Omega''[x]}{\Omega[x]^3}$
33	$-\frac{\partial_0\partial_0 h_{33}}{2\Omega[x]^2}+\frac{\partial_0\partial_0 h}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{33}}{2\Omega[x]^2}-\frac{\partial_1\partial_1 h}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{33}}{2\Omega[x]^2}-\frac{\partial_2\partial_2 h}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{33}}{2\Omega[x]^2}-\frac{\partial_1 h_{33}\,\Omega'[x]}{\Omega[x]^3}+$ $\frac{\partial_1 h\,\Omega'[x]}{\Omega[x]^3}-\frac{2h_{11}\,\Omega'[x]^2}{\Omega[x]^4}+\frac{2h_{33}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{h\,\Omega'[x]^2}{\Omega[x]^4}+\frac{h_{11}\,\Omega''[x]}{\Omega[x]^3}-\frac{3h_{33}\,\Omega''[x]}{\Omega[x]^3}+\frac{h\,\Omega''[x]}{\Omega[x]^3}$
01	$-\frac{\partial_0\partial_0 h_{01}}{2\Omega[x]^2}+\frac{\partial_0\partial_1 h}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{01}}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{01}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{01}}{2\Omega[x]^2}-\frac{\partial_0 h\,\Omega'[x]}{\Omega[x]^3}-\frac{\partial_1 h_{01}\,\Omega'[x]}{\Omega[x]^3}+\frac{h_{01}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{2h_{01}\,\Omega''[x]}{\Omega[x]^3}$
02	$-\frac{\partial_0\partial_0 h_{02}}{2\Omega[x]^2}+\frac{\partial_0\partial_2 h}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{02}}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{02}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{02}}{2\Omega[x]^2}-\frac{\partial_1 h_{02}\,\Omega'[x]}{\Omega[x]^3}+\frac{2h_{02}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{3h_{02}\,\Omega''[x]}{\Omega[x]^3}$
03	$-\frac{\partial_0\partial_0 h_{03}}{2\Omega[x]^2}+\frac{\partial_0\partial_3 h}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{03}}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{03}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{03}}{2\Omega[x]^2}-\frac{\partial_1 h_{03}\,\Omega'[x]}{\Omega[x]^3}+\frac{2h_{03}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{3h_{03}\,\Omega''[x]}{\Omega[x]^3}$
12	$-\frac{\partial_0\partial_0 h_{12}}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{12}}{2\Omega[x]^2}+\frac{\partial_1\partial_2 h}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{12}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{12}}{2\Omega[x]^2}-\frac{\partial_1 h_{12}\,\Omega'[x]}{\Omega[x]^3}-\frac{\partial_2 h\,\Omega'[x]}{\Omega[x]^3}+\frac{h_{12}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{2h_{12}\,\Omega''[x]}{\Omega[x]^3}$
13	$-\frac{\partial_0\partial_0 h_{13}}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{13}}{2\Omega[x]^2}+\frac{\partial_1\partial_3 h}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{13}}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{13}}{2\Omega[x]^2}-\frac{\partial_1 h_{13}\,\Omega'[x]}{\Omega[x]^3}-\frac{\partial_3 h\,\Omega'[x]}{\Omega[x]^3}+\frac{h_{13}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{2h_{13}\,\Omega''[x]}{\Omega[x]^3}$
23	$-\frac{\partial_0\partial_0 h_{23}}{2\Omega[x]^2}+\frac{\partial_1\partial_1 h_{23}}{2\Omega[x]^2}+\frac{\partial_2\partial_2 h_{23}}{2\Omega[x]^2}+\frac{\partial_2\partial_3 h}{2\Omega[x]^2}+\frac{\partial_3\partial_3 h_{23}}{2\Omega[x]^2}-\frac{\partial_1 h_{23}\,\Omega'[x]}{\Omega[x]^3}+\frac{2h_{23}\,\Omega'[x]^2}{\Omega[x]^4}-\frac{3h_{23}\,\Omega''[x]}{\Omega[x]^3}$

Similar mixing for Ω(y), Ω(z).

- $\Omega\left[t,\ \left(x^2+y^2+z^2\right)^{1/2}\right]$

“Transverse” gauge (J=Q=P=0):

00

$$-\frac{\partial_0\partial_0 h_{00}}{2\,\Omega^2}+\frac{\partial_1\partial_1 h_{00}}{2\,\Omega^2}+\frac{\partial_1\partial_1 h}{2\,\Omega^2}+\frac{\partial_2\partial_2 h_{00}}{2\,\Omega^2}+\frac{\partial_2\partial_2 h}{2\,\Omega^2}+\frac{\partial_3\partial_3 h_{00}}{2\,\Omega^2}+\frac{\partial_3\partial_3 h}{2\,\Omega^2}-\frac{9\,r\,h_{00}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{3\,r\,h\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{00}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+$$
$$\frac{2\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{00}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{2\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}+$$
$$\frac{2\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{00}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,x\,\partial_1 h_{00}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,x\,\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h_{00}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,z\,\partial_3 h_{00}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,z\,\partial_3 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}+$$
$$\frac{2\,r\,h_{00}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{r\,h\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{4\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{00}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+$$
$$\frac{2\,r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{r\,h\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{4\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{4\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{00}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+$$
$$\frac{2\,r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{r\,h\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{3\,r\,h_{00}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{r\,h_{11}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{r\,h\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-$$
$$\frac{2\,r\,h_{12}\,x\,y\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{00}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{r\,h_{22}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{r\,h\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{13}\,x\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}-$$
$$\frac{2\,r\,h_{23}\,y\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{00}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{r\,h_{33}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{r\,h\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{\partial_0 h_{00}\,\Omega^{(1,0)}[t,r]}{\Omega^3}-$$
$$\frac{\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega^3}-\frac{6\,r\,h_{01}\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{6\,r\,h_{02}\,y\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{6\,r\,h_{03}\,z\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+$$
$$\frac{2\,h_{00}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}+\frac{2\,h\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}+\frac{4\,r\,h_{01}\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{02}\,y\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{03}\,z\,\Omega^{(1,1)}[t,r]}{\Omega^3}$$

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$$-\frac{\partial_0\partial_0 h_{11}}{2\,\Omega^2}+\frac{\partial_0\partial_0 h}{2\,\Omega^2}+\frac{\partial_1\partial_1 h_{11}}{2\,\Omega^2}+\frac{\partial_2\partial_2 h_{11}}{2\,\Omega^2}-\frac{\partial_2\partial_2 h}{2\,\Omega^2}+\frac{\partial_3\partial_3 h_{11}}{2\,\Omega^2}-\frac{\partial_3\partial_3 h}{2\,\Omega^2}-\frac{6\,r\,h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{2\,r\,h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{4\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{11}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,h\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{4\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{11}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,h\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,x\,\partial_1 h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,x\,\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,y\,\partial_2 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,z\,\partial_3 h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,z\,\partial_3 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{6\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+$$
$$\frac{2\,r\,h_{11}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{6\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{4\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+$$
$$\frac{2\,r\,h_{11}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{4\,r\,h_{12}\,x\,y\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{11}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{22}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{r\,h\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{13}\,x\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{2\,r\,h_{23}\,y\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{11}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{33}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{r\,h\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{\partial_0 h_{11}\,\Omega^{(1,0)}[t,r]}{\Omega^3}-\frac{\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega^3}+\frac{6\,r\,h_{01}\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+$$
$$\frac{4\,r\,h_{02}\,y\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+\frac{4\,r\,h_{03}\,z\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{2\,h_{00}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-\frac{2\,h_{11}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}+\frac{h\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-$$
$$\frac{4\,r\,h_{01}\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{02}\,y\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{03}\,z\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{h_{00}\,\Omega^{(2,0)}[t,r]}{\Omega^3}+\frac{3\,h_{11}\,\Omega^{(2,0)}[t,r]}{\Omega^3}-\frac{h\,\Omega^{(2,0)}[t,r]}{\Omega^3}$$

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$$-\frac{\partial_0\partial_0 h_{22}}{2\,\Omega^2}+\frac{\partial_0\partial_0 h}{2\,\Omega^2}+\frac{\partial_1\partial_1 h_{22}}{2\,\Omega^2}-\frac{\partial_1\partial_1 h}{2\,\Omega^2}+\frac{\partial_2\partial_2 h_{22}}{2\,\Omega^2}+\frac{\partial_3\partial_3 h_{22}}{2\,\Omega^2}-\frac{\partial_3\partial_3 h}{2\,\Omega^2}+\frac{r\,h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{6\,r\,h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{2\,r\,h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{22}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{4\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{4\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{22}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,h\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,x\,\partial_1 h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,x\,\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,z\,\partial_3 h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,z\,\partial_3 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{22}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-$$
$$\frac{6\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{4\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{6\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+$$
$$\frac{2\,r\,h_{22}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{r\,h_{11}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{22}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{12}\,x\,y\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{2\,r\,h_{13}\,x\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{23}\,y\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{22}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{33}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{r\,h\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{\partial_0 h_{22}\,\Omega^{(1,0)}[t,r]}{\Omega^3}-\frac{\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{01}\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+$$
$$\frac{6\,r\,h_{02}\,y\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+\frac{4\,r\,h_{03}\,z\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{2\,h_{00}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-\frac{2\,h_{22}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}+\frac{h\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-$$
$$\frac{2\,r\,h_{01}\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{4\,r\,h_{02}\,y\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{03}\,z\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{h_{00}\,\Omega^{(2,0)}[t,r]}{\Omega^3}+\frac{3\,h_{22}\,\Omega^{(2,0)}[t,r]}{\Omega^3}-\frac{h\,\Omega^{(2,0)}[t,r]}{\Omega^3}$$

33

$$-\frac{\partial_0\partial_0 h_{33}}{2\,\Omega^2}+\frac{\partial_0\partial_0 h}{2\,\Omega^2}+\frac{\partial_1\partial_1 h_{33}}{2\,\Omega^2}-\frac{\partial_1\partial_1 h}{2\,\Omega^2}+\frac{\partial_2\partial_2 h_{33}}{2\,\Omega^2}-\frac{\partial_2\partial_2 h}{2\,\Omega^2}+\frac{\partial_3\partial_3 h_{33}}{2\,\Omega^2}+\frac{r\,h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{6\,r\,h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{2\,r\,h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{33}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{2\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{33}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{4\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{4\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,x\,\partial_1 h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,x\,\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,y\,\partial_2 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,z\,\partial_3 h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,z\,\partial_3 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{11}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{33}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-$$
$$\frac{4\,r\,h_{12}\,x\,y\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{22}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{33}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{6\,r\,h_{13}\,x\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-$$
$$\frac{6\,r\,h_{23}\,y\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{33}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{r\,h_{11}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{33}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{2\,r\,h_{12}\,x\,y\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{r\,h_{22}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{33}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{r\,h\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{4\,r\,h_{13}\,x\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{23}\,y\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{\partial_0 h_{33}\,\Omega^{(1,0)}[t,r]}{\Omega^3}-\frac{\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega^3}+\frac{4\,r\,h_{01}\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+$$
$$\frac{4\,r\,h_{02}\,y\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+\frac{6\,r\,h_{03}\,z\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{2\,h_{00}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-\frac{2\,h_{33}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}+\frac{h\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-$$
$$\frac{2\,r\,h_{01}\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{2\,r\,h_{02}\,y\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{4\,r\,h_{03}\,z\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{h_{00}\,\Omega^{(2,0)}[t,r]}{\Omega^3}+\frac{3\,h_{33}\,\Omega^{(2,0)}[t,r]}{\Omega^3}-\frac{h\,\Omega^{(2,0)}[t,r]}{\Omega^3}$$

01

$$-\frac{\partial_0\partial_0 h_{01}}{2\Omega^2}+\frac{\partial_0\partial_1 h}{2\Omega^2}+\frac{\partial_1\partial_1 h_{01}}{2\Omega^2}+\frac{\partial_2\partial_2 h_{01}}{2\Omega^2}+\frac{\partial_3\partial_3 h_{01}}{2\Omega^2}-\frac{8\,r\,h_{01}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{2\,r\,h_{01}\,x^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,h_{02}\,x\,y\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{01}\,y^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,h_{03}\,x\,z\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{3\,r\,h_{01}\,z^2\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,x\,\partial_0 h\,\Omega^{(0,1)}[t,r]}{\Omega^3}-$$
$$\frac{r\,x\,\partial_1 h_{01}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,y\,\partial_2 h_{01}\,\Omega^{(0,1)}[t,r]}{\Omega^3}-\frac{r\,z\,\partial_3 h_{01}\,\Omega^{(0,1)}[t,r]}{\Omega^3}+\frac{r\,h_{01}\,x^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h_{02}\,x\,y\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+$$
$$\frac{2\,r\,h_{01}\,y^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{r\,h_{03}\,x\,z\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}+\frac{2\,r\,h_{01}\,z^2\,\Omega^{(0,1)}[t,r]^2}{\Omega^4}-\frac{2\,r\,h_{01}\,x^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{02}\,x\,y\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{01}\,y^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{r\,h_{03}\,x\,z\,\Omega^{(0,2)}[t,r]}{\Omega^3}-\frac{3\,r\,h_{01}\,z^2\,\Omega^{(0,2)}[t,r]}{\Omega^3}+\frac{\partial_0 h_{01}\,\Omega^{(1,0)}[t,r]}{\Omega^3}-$$
$$\frac{\partial_1 h\,\Omega^{(1,0)}[t,r]}{\Omega^3}+\frac{r\,h_{00}\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{r\,h_{11}\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}+\frac{3\,r\,h\,x\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-$$
$$\frac{r\,h_{12}\,y\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{r\,h_{13}\,z\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega^4}-\frac{h_{01}\,\Omega^{(1,0)}[t,r]^2}{\Omega^4}-\frac{r\,h_{00}\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}+$$
$$\frac{r\,h_{11}\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}-\frac{r\,h\,x\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{r\,h_{12}\,y\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{r\,h_{13}\,z\,\Omega^{(1,1)}[t,r]}{\Omega^3}+\frac{2\,h_{01}\,\Omega^{(2,0)}[t,r]}{\Omega^3}$$

.. does not diagonalize

■ deSitter $\Omega = \frac{1}{(1-Ht)}$ Polar

"Transverse" gauge (J=Q=P=0):

tt

$$2H^2\,h_{00}+2H^2\,h+H\,\partial_0 h_{00}-H\,\partial_0 h-\frac{1}{2}\,\partial_0\partial_0 h_{00}+\frac{\partial_1 h_{00}}{r}+\frac{\partial_1 h}{r}+\frac{1}{2}\,\partial_1\partial_1 h_{00}+$$
$$\frac{\partial_1\partial_1 h}{2}+\frac{\text{Cot}[\theta]\,\partial_2 h_{00}}{2r^2}+\frac{\text{Cot}[\theta]\,\partial_2 h}{2r^2}+\frac{\partial_2\partial_2 h_{00}}{2r^2}+\frac{\partial_2\partial_2 h}{2r^2}+\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{00}}{2r^2}+\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h}{2r^2}+$$
$$t\left(-H^2\,\partial_0 h_{00}+H^2\,\partial_0 h+H\,\partial_0\partial_0 h_{00}-\frac{2H\,\partial_1 h_{00}}{r}-\frac{2H\,\partial_1 h}{r}-H\,\partial_1\partial_1 h_{00}-H\,\partial_1\partial_1 h-\right.$$
$$\left.\frac{H\,\text{Cot}[\theta]\,\partial_2 h_{00}}{r^2}-\frac{H\,\text{Cot}[\theta]\,\partial_2 h}{r^2}-\frac{H\,\partial_2\partial_2 h_{00}}{r^2}-\frac{H\,\partial_2\partial_2 h}{r^2}-\frac{H\,\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{00}}{r^2}-\frac{H\,\text{Csc}[\theta]^2\,\partial_3\partial_3 h}{r^2}\right)+$$
$$t^2\left(-\frac{1}{2}H^2\,\partial_0\partial_0 h_{00}+\frac{H^2\,\partial_1 h_{00}}{r}+\frac{H^2\,\partial_1 h}{r}+\frac{1}{2}H^2\,\partial_1\partial_1 h_{00}+\frac{1}{2}H^2\,\partial_1\partial_1 h+\frac{H^2\,\text{Cot}[\theta]\,\partial_2 h_{00}}{2r^2}+\right.$$
$$\left.\frac{H^2\,\text{Cot}[\theta]\,\partial_2 h}{2r^2}+\frac{H^2\,\partial_2\partial_2 h_{00}}{2r^2}+\frac{H^2\,\partial_2\partial_2 h}{2r^2}+\frac{H^2\,\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{00}}{2r^2}+\frac{H^2\,\text{Csc}[\theta]^2\,\partial_3\partial_3 h}{2r^2}\right)$$

rr	$$4H^2 h_{11} + \frac{h_{22}}{r^4} + \frac{\csc[\theta]^2 h_{33}}{r^4} - \frac{2\cot[\theta] h_{12}}{r^3} - \frac{2h_{11}}{r^2} - H^2 h + H\partial_0 h_{11} - H\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{11} + \frac{\partial_0\partial_0 h}{2} + \frac{\partial_1 h_{11}}{r} - \frac{\partial_1 h}{r} + \frac{1}{2}\partial_1\partial_1 h_{11} + \frac{\cot[\theta]\partial_2 h_{11}}{2r^2} - \frac{2\partial_2 h_{12}}{r^3} - \frac{\cot[\theta]\partial_2 h}{2r^2} + \frac{\partial_2\partial_2 h_{11}}{2r^2} - \frac{\partial_2\partial_2 h}{2r^2} - \frac{2\csc[\theta]^2\partial_3 h_{13}}{r^3} + \frac{\csc[\theta]^2\partial_3\partial_3 h_{11}}{2r^2} - \frac{\csc[\theta]^2\partial_3\partial_3 h}{2r^2} + t\left(-\frac{2H h_{22}}{r^4} - \frac{2H\csc[\theta]^2 h_{33}}{r^4} + \frac{4H\cot[\theta] h_{12}}{r^3} + \frac{4H h_{11}}{r^2} - H^2\partial_0 h_{11} + H^2\partial_0 h + H\partial_0\partial_0 h_{11} - H\partial_0\partial_0 h - \frac{2H\partial_1 h_{11}}{r} + \frac{2H\partial_1 h}{r} - H\partial_1\partial_1 h_{11} - \frac{H\cot[\theta]\partial_2 h_{11}}{r^2} + \frac{4H\partial_2 h_{12}}{r^3} + \frac{H\cot[\theta]\partial_2 h}{r^2} - \frac{H\partial_2\partial_2 h_{11}}{r^2} + \frac{H\partial_2\partial_2 h}{r^2} + \frac{4H\csc[\theta]^2\partial_3 h_{13}}{r^3} - \frac{H\csc[\theta]^2\partial_3\partial_3 h_{11}}{r^2} + \frac{H\csc[\theta]^2\partial_3\partial_3 h}{r^2}\right) + t^2\left(\frac{H^2 h_{22}}{r^4} + \frac{H^2\csc[\theta]^2 h_{33}}{r^4} - \frac{2H^2\cot[\theta] h_{12}}{r^3} - \frac{2H^2 h_{11}}{r^2} - \frac{1}{2}H^2\partial_0\partial_0 h_{11} + \frac{1}{2}H^2\partial_0\partial_0 h + \frac{H^2\partial_1 h_{11}}{r} - \frac{H^2\partial_1 h}{r} + \frac{1}{2}H^2\partial_1\partial_1 h_{11} + \frac{H^2\cot[\theta]\partial_2 h_{11}}{2r^2} - \frac{2H^2\partial_2 h_{12}}{r^3} - \frac{H^2\cot[\theta]\partial_2 h}{2r^2} + \frac{H^2\partial_2\partial_2 h_{11}}{2r^2} - \frac{H^2\partial_2\partial_2 h}{2r^2} - \frac{2H^2\csc[\theta]^2\partial_3 h_{13}}{r^3} + \frac{H^2\csc[\theta]^2\partial_3\partial_3 h_{11}}{2r^2} - \frac{H^2\csc[\theta]^2\partial_3\partial_3 h}{2r^2}\right)$$
$\theta\theta$	$$h_{11} + 4H^2 h_{22} - \frac{\cot[\theta]^2 h_{22}}{r^2} + \frac{\cot[\theta]^2\csc[\theta]^2 h_{33}}{r^2} - H^2 r^2 h + H\partial_0 h_{22} - Hr^2\partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{22} + \frac{1}{2}r^2\partial_0\partial_0 h - \frac{\partial_1 h_{22}}{r} - \frac{r\partial_1 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{22} - \frac{1}{2}r^2\partial_1\partial_1 h + \frac{2\partial_2 h_{12}}{r} + \frac{\cot[\theta]\partial_2 h_{22}}{2r^2} - \frac{1}{2}\cot[\theta]\partial_2 h + \frac{\partial_2\partial_2 h_{22}}{2r^2} - \frac{2\cot[\theta]\csc[\theta]^2\partial_3 h_{23}}{r^2} + \frac{\csc[\theta]^2\partial_3\partial_3 h_{22}}{2r^2} - \frac{1}{2}\csc[\theta]^2\partial_3\partial_3 h + t\left(-2H h_{11} + \frac{2H\cot[\theta]^2 h_{22}}{r^2} - \frac{2H\cot[\theta]^2\csc[\theta]^2 h_{33}}{r^2} - H^2\partial_0 h_{22} + H^2 r^2\partial_0 h + H\partial_0\partial_0 h_{22} - Hr^2\partial_0\partial_0 h + \frac{2H\partial_1 h_{22}}{r} + Hr\partial_1 h - H\partial_1\partial_1 h_{22} + Hr^2\partial_1\partial_1 h - \frac{4H\partial_2 h_{12}}{r} - \frac{H\cot[\theta]\partial_2 h_{22}}{r^2} + H\cot[\theta]\partial_2 h - \frac{H\partial_2\partial_2 h_{22}}{r^2} + \frac{4H\cot[\theta]\csc[\theta]^2\partial_3 h_{23}}{r^2} - \frac{H\csc[\theta]^2\partial_3\partial_3 h_{22}}{r^2} + H\csc[\theta]^2\partial_3\partial_3 h\right) + t^2\left(H^2 h_{11} - \frac{H^2\cot[\theta]^2 h_{22}}{r^2} + \frac{H^2\cot[\theta]^2\csc[\theta]^2 h_{33}}{r^2} - \frac{1}{2}H^2\partial_0\partial_0 h_{22} + \frac{1}{2}H^2 r^2\partial_0\partial_0 h - \frac{H^2\partial_1 h_{22}}{r} - \frac{1}{2}H^2 r\partial_1 h + \frac{1}{2}H^2\partial_1\partial_1 h_{22} - \frac{1}{2}H^2 r^2\partial_1\partial_1 h + \frac{2H^2\partial_2 h_{12}}{r} + \frac{H^2\cot[\theta]\partial_2 h_{22}}{2r^2} - \frac{1}{2}H^2\cot[\theta]\partial_2 h + \frac{H^2\partial_2\partial_2 h_{22}}{2r^2} - \frac{2H^2\cot[\theta]\csc[\theta]^2\partial_3 h_{23}}{r^2} + \frac{H^2\csc[\theta]^2\partial_3\partial_3 h_{22}}{2r^2} - \frac{1}{2}H^2\csc[\theta]^2\partial_3\partial_3 h\right)$$

$\phi\phi$

$$4H^2 h_{33} + \frac{\cos[\theta]^2 h_{22}}{r^2} + \frac{\csc[\theta]^2 h_{33}}{r^2} + \frac{2\cos[\theta] h_{12} \sin[\theta]}{r} + h_{11} \sin[\theta]^2 - H^2 r^2 \sin[\theta]^2 h + H \partial_0 h_{33} -$$
$$H r^2 \sin[\theta]^2 \partial_0 h - \frac{1}{2}\partial_0\partial_0 h_{33} + \frac{1}{2} r^2 \sin[\theta]^2 \partial_0\partial_0 h - \frac{\partial_1 h_{33}}{r} - \frac{1}{2} r \sin[\theta]^2 \partial_1 h + \frac{1}{2}\partial_1\partial_1 h_{33} -$$
$$\frac{1}{2} r^2 \sin[\theta]^2 \partial_1\partial_1 h - \frac{3\cot[\theta]\partial_2 h_{33}}{2r^2} + \frac{\partial_2\partial_2 h_{33}}{2r^2} - \frac{1}{2}\sin[\theta]^2 \partial_2\partial_2 h + \frac{2\partial_3 h_{13}}{r} + \frac{2\cot[\theta]\partial_3 h_{23}}{r^2} + \frac{\csc[\theta]^2 \partial_3\partial_3 h_{33}}{2r^2} +$$
$$t\left(-\frac{2H\cos[\theta]^2 h_{22}}{r^2} - \frac{2H\csc[\theta]^2 h_{33}}{r^2} - \frac{4H\cos[\theta] h_{12}\sin[\theta]}{r} - 2H h_{11}\sin[\theta]^2 - H^2\partial_0 h_{33} + H^2 r^2 \sin[\theta]^2 \partial_0 h + \right.$$
$$H\partial_0\partial_0 h_{33} - H r^2 \sin[\theta]^2 \partial_0\partial_0 h + \frac{2H\partial_1 h_{33}}{r} + H r \sin[\theta]^2 \partial_1 h - H\partial_1\partial_1 h_{33} + H r^2 \sin[\theta]^2 \partial_1\partial_1 h +$$
$$\left.\frac{3H\cot[\theta]\partial_2 h_{33}}{r^2} - \frac{H\partial_2\partial_2 h_{33}}{r^2} + H\sin[\theta]^2\partial_2\partial_2 h - \frac{4H\partial_3 h_{13}}{r} - \frac{4H\cot[\theta]\partial_3 h_{23}}{r^2} - \frac{H\csc[\theta]^2\partial_3\partial_3 h_{33}}{r^2}\right) +$$
$$t^2\left(\frac{H^2\cos[\theta]^2 h_{22}}{r^2} + \frac{H^2\csc[\theta]^2 h_{33}}{r^2} + \frac{2H^2\cos[\theta] h_{12}\sin[\theta]}{r} + H^2 h_{11}\sin[\theta]^2 - \frac{1}{2}H^2\partial_0\partial_0 h_{33} +\right.$$
$$\frac{1}{2}H^2 r^2 \sin[\theta]^2\partial_0\partial_0 h - \frac{H^2\partial_1 h_{33}}{r} - \frac{1}{2}H^2 r\sin[\theta]^2\partial_1 h + \frac{1}{2}H^2\partial_1\partial_1 h_{33} - \frac{1}{2}H^2 r^2\sin[\theta]^2\partial_1\partial_1 h -$$
$$\left.\frac{3H^2\cot[\theta]\partial_2 h_{33}}{2r^2} + \frac{H^2\partial_2\partial_2 h_{33}}{2r^2} - \frac{1}{2}H^2\sin[\theta]^2\partial_2\partial_2 h + \frac{2H^2\partial_3 h_{13}}{r} + \frac{2H^2\cot[\theta]\partial_3 h_{23}}{r^2} + \frac{H^2\csc[\theta]^2\partial_3\partial_3 h_{33}}{2r^2}\right)$$

tr

$$3H^2 h_{01} - \frac{\cot[\theta] h_{02}}{r^3} - \frac{h_{01}}{r^2} + H\partial_0 h_{01} - \frac{1}{2}\partial_0\partial_0 h_{01} + \frac{\partial_0\partial_1 h}{2} + \frac{\partial_1 h_{01}}{r} -$$
$$H\partial_1 h + \frac{1}{2}\partial_1\partial_1 h_{01} + \frac{\cot[\theta]\partial_2 h_{01}}{2r^2} - \frac{\partial_2 h_{02}}{r^3} + \frac{\partial_2\partial_2 h_{01}}{2r^2} - \frac{\csc[\theta]^2\partial_3 h_{03}}{r^3} + \frac{\csc[\theta]^2\partial_3\partial_3 h_{01}}{2r^2} +$$
$$t\left(\frac{2H\cot[\theta] h_{02}}{r^3} + \frac{2H h_{01}}{r^2} - H^2\partial_0 h_{01} + H\partial_0\partial_0 h_{01} - H\partial_0\partial_1 h - \frac{2H\partial_1 h_{01}}{r} + H^2\partial_1 h -\right.$$
$$\left.H\partial_1\partial_1 h_{01} - \frac{H\cot[\theta]\partial_2 h_{01}}{r^2} + \frac{2H\partial_2 h_{02}}{r^3} - \frac{H\partial_2\partial_2 h_{01}}{r^2} + \frac{2H\csc[\theta]^2\partial_3 h_{03}}{r^3} - \frac{H\csc[\theta]^2\partial_3\partial_3 h_{01}}{r^2}\right) +$$
$$t^2\left(-\frac{H^2\cot[\theta] h_{02}}{r^3} - \frac{H^2 h_{01}}{r^2} - \frac{1}{2}H^2\partial_0\partial_0 h_{01} + \frac{1}{2}H^2\partial_0\partial_1 h + \frac{H^2\partial_1 h_{01}}{r} + \frac{1}{2}H^2\partial_1\partial_1 h_{01} +\right.$$
$$\left.\frac{H^2\cot[\theta]\partial_2 h_{01}}{2r^2} - \frac{H^2\partial_2 h_{02}}{r^3} + \frac{H^2\partial_2\partial_2 h_{01}}{2r^2} - \frac{H^2\csc[\theta]^2\partial_3 h_{03}}{r^3} + \frac{H^2\csc[\theta]^2\partial_3\partial_3 h_{01}}{2r^2}\right)$$

$t\theta$

$$3H^2 h_{02} - \frac{h_{02}}{2r^2} - \frac{\cot[\theta]^2 h_{02}}{2r^2} + H\partial_0 h_{02} - \frac{1}{2}\partial_0\partial_0 h_{02} + \frac{\partial_0\partial_2 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{02} +$$
$$\frac{\partial_2 h_{01}}{r} + \frac{\cot[\theta]\partial_2 h_{02}}{2r^2} - H\partial_2 h + \frac{\partial_2\partial_2 h_{02}}{2r^2} - \frac{\cot[\theta]\csc[\theta]^2\partial_3 h_{03}}{r^2} + \frac{\csc[\theta]^2\partial_3\partial_3 h_{02}}{2r^2} +$$
$$t\left(\frac{H h_{02}}{r^2} + \frac{H\cot[\theta]^2 h_{02}}{r^2} - H^2\partial_0 h_{02} + H\partial_0\partial_0 h_{02} - H\partial_0\partial_2 h - H\partial_1\partial_1 h_{02} - \frac{2H\partial_2 h_{01}}{r} -\right.$$
$$\left.\frac{H\cot[\theta]\partial_2 h_{02}}{r^2} + H^2\partial_2 h - \frac{H\partial_2\partial_2 h_{02}}{r^2} + \frac{2H\cot[\theta]\csc[\theta]^2\partial_3 h_{03}}{r^2} - \frac{H\csc[\theta]^2\partial_3\partial_3 h_{02}}{r^2}\right) +$$
$$t^2\left(-\frac{H^2 h_{02}}{2r^2} - \frac{H^2\cot[\theta]^2 h_{02}}{2r^2} - \frac{1}{2}H^2\partial_0\partial_0 h_{02} + \frac{1}{2}H^2\partial_0\partial_2 h + \frac{1}{2}H^2\partial_1\partial_1 h_{02} + \frac{H^2\partial_2 h_{01}}{r} +\right.$$
$$\left.\frac{H^2\cot[\theta]\partial_2 h_{02}}{2r^2} + \frac{H^2\partial_2\partial_2 h_{02}}{2r^2} - \frac{H^2\cot[\theta]\csc[\theta]^2\partial_3 h_{03}}{r^2} + \frac{H^2\csc[\theta]^2\partial_3\partial_3 h_{02}}{2r^2}\right)$$

$t\phi$	$$3 H^2 h_{03} - \frac{h_{03}}{2 r^2} - \frac{\text{Cot}[\theta]^2 h_{03}}{2 r^2} + \frac{\text{Csc}[\theta]^2 h_{03}}{2 r^2} + H \partial_0 h_{03} - \frac{1}{2} \partial_0 \partial_0 h_{03} + \frac{\partial_0 \partial_3 h}{2} + \frac{1}{2} \partial_1 \partial_1 h_{03} - \frac{\text{Cot}[\theta] \partial_2 h_{03}}{2 r^2} + \frac{\partial_2 \partial_2 h_{03}}{2 r^2} + \frac{\partial_3 h_{01}}{r} + \frac{\text{Cot}[\theta] \partial_3 h_{02}}{r^2} - H \partial_3 h + \frac{\text{Csc}[\theta]^2 \partial_3 \partial_3 h_{03}}{2 r^2} + t \left(\frac{H h_{03}}{r^2} + \frac{H \text{Cot}[\theta]^2 h_{03}}{r^2} - \frac{H \text{Csc}[\theta]^2 h_{03}}{r^2} - H^2 \partial_0 h_{03} + H \partial_0 \partial_0 h_{03} - H \partial_0 \partial_3 h - H \partial_1 \partial_1 h_{03} + \frac{H \text{Cot}[\theta] \partial_2 h_{03}}{r^2} - \frac{H \partial_2 \partial_2 h_{03}}{r^2} - \frac{2 H \partial_3 h_{01}}{r} - \frac{2 H \text{Cot}[\theta] \partial_3 h_{02}}{r^2} + H^2 \partial_3 h - \frac{H \text{Csc}[\theta]^2 \partial_3 \partial_3 h_{03}}{r^2} \right) + t^2 \left(-\frac{H^2 h_{03}}{2 r^2} - \frac{H^2 \text{Cot}[\theta]^2 h_{03}}{2 r^2} + \frac{H^2 \text{Csc}[\theta]^2 h_{03}}{2 r^2} - \frac{1}{2} H^2 \partial_0 \partial_0 h_{03} + \frac{1}{2} H^2 \partial_0 \partial_3 h + \frac{1}{2} H^2 \partial_1 \partial_1 h_{03} - \frac{H^2 \text{Cot}[\theta] \partial_2 h_{03}}{2 r^2} + \frac{H^2 \partial_2 \partial_2 h_{03}}{2 r^2} + \frac{H^2 \partial_3 h_{01}}{r} + \frac{H^2 \text{Cot}[\theta] \partial_3 h_{02}}{r^2} + \frac{H^2 \text{Csc}[\theta]^2 \partial_3 \partial_3 h_{03}}{2 r^2} \right)$$
$r\theta$	$$4 H^2 h_{12} - \frac{\text{Cot}[\theta] h_{22}}{r^3} + \frac{\text{Cot}[\theta] \text{Csc}[\theta]^2 h_{33}}{r^3} - \frac{5 h_{12}}{2 r^2} - \frac{\text{Cot}[\theta]^2 h_{12}}{2 r^2} + H \partial_0 h_{12} - \frac{1}{2} \partial_0 \partial_0 h_{12} + \frac{1}{2} \partial_1 \partial_1 h_{12} + \frac{\partial_1 \partial_2 h}{2} + \frac{\partial_2 h_{11}}{r} + \frac{\text{Cot}[\theta] \partial_2 h_{12}}{2 r^2} - \frac{\partial_2 h_{22}}{r^3} - \frac{\partial_2 h}{2 r} + \frac{\partial_2 \partial_2 h_{12}}{2 r^2} - \frac{\text{Cot}[\theta] \text{Csc}[\theta]^2 \partial_3 h_{13}}{r^2} - \frac{\text{Csc}[\theta]^2 \partial_3 h_{23}}{r^3} + \frac{\text{Csc}[\theta]^2 \partial_3 \partial_3 h_{12}}{2 r^2} + t \left(\frac{2 H \text{Cot}[\theta] h_{22}}{r^3} - \frac{2 H \text{Cot}[\theta] \text{Csc}[\theta]^2 h_{33}}{r^3} + \frac{5 H h_{12}}{r^2} + \frac{H \text{Cot}[\theta]^2 h_{12}}{r^2} - H^2 \partial_0 h_{12} + H \partial_0 \partial_0 h_{12} - H \partial_1 \partial_1 h_{12} - H \partial_1 \partial_2 h - \frac{2 H \partial_2 h_{11}}{r} - \frac{H \text{Cot}[\theta] \partial_2 h_{12}}{r^2} + \frac{2 H \partial_2 h_{22}}{r^3} + \frac{H \partial_2 h}{r} - \frac{H \partial_2 \partial_2 h_{12}}{r^2} + \frac{2 H \text{Cot}[\theta] \text{Csc}[\theta]^2 \partial_3 h_{13}}{r^2} + \frac{2 H \text{Csc}[\theta]^2 \partial_3 h_{23}}{r^3} - \frac{H \text{Csc}[\theta]^2 \partial_3 \partial_3 h_{12}}{r^2} \right) + t^2 \left(-\frac{H^2 \text{Cot}[\theta] h_{22}}{r^3} + \frac{H^2 \text{Cot}[\theta] \text{Csc}[\theta]^2 h_{33}}{r^3} - \frac{5 H^2 h_{12}}{2 r^2} - \frac{H^2 \text{Cot}[\theta]^2 h_{12}}{2 r^2} - \frac{1}{2} H^2 \partial_0 \partial_0 h_{12} + \frac{1}{2} H^2 \partial_1 \partial_1 h_{12} + \frac{1}{2} H^2 \partial_1 \partial_2 h + \frac{H^2 \partial_2 h_{11}}{r} + \frac{H^2 \text{Cot}[\theta] \partial_2 h_{12}}{2 r^2} - \frac{H^2 \partial_2 h_{22}}{r^3} - \frac{H^2 \partial_2 h}{2 r} + \frac{H^2 \partial_2 \partial_2 h_{12}}{2 r^2} - \frac{H^2 \text{Cot}[\theta] \text{Csc}[\theta]^2 \partial_3 h_{13}}{r^2} - \frac{H^2 \text{Csc}[\theta]^2 \partial_3 h_{23}}{r^3} + \frac{H^2 \text{Csc}[\theta]^2 \partial_3 \partial_3 h_{12}}{2 r^2} \right)$$
$r\phi$	$$4 H^2 h_{13} - \frac{\text{Cot}[\theta] h_{23}}{r^3} - \frac{5 h_{13}}{2 r^2} - \frac{\text{Cot}[\theta]^2 h_{13}}{2 r^2} + \frac{\text{Csc}[\theta]^2 h_{13}}{2 r^2} + H \partial_0 h_{13} - \frac{1}{2} \partial_0 \partial_0 h_{13} + \frac{1}{2} \partial_1 \partial_1 h_{13} + \frac{\partial_1 \partial_3 h}{2} - \frac{\text{Cot}[\theta] \partial_2 h_{13}}{2 r^2} - \frac{\partial_2 h_{23}}{r^3} + \frac{\partial_2 \partial_2 h_{13}}{2 r^2} + \frac{\partial_3 h_{11}}{r} + \frac{\text{Cot}[\theta] \partial_3 h_{12}}{r^2} - \frac{\text{Csc}[\theta]^2 \partial_3 h_{33}}{r^3} - \frac{\partial_3 h}{2 r} + \frac{\text{Csc}[\theta]^2 \partial_3 \partial_3 h_{13}}{2 r^2} + t \left(\frac{2 H \text{Cot}[\theta] h_{23}}{r^3} + \frac{5 H h_{13}}{r^2} + \frac{H \text{Cot}[\theta]^2 h_{13}}{r^2} - \frac{H \text{Csc}[\theta]^2 h_{13}}{r^2} - H^2 \partial_0 h_{13} + H \partial_0 \partial_0 h_{13} - H \partial_1 \partial_1 h_{13} - H \partial_1 \partial_3 h + \frac{H \text{Cot}[\theta] \partial_2 h_{13}}{r^2} + \frac{2 H \partial_2 h_{23}}{r^3} - \frac{H \partial_2 \partial_2 h_{13}}{r^2} - \frac{2 H \partial_3 h_{11}}{r} - \frac{2 H \text{Cot}[\theta] \partial_3 h_{12}}{r^2} + \frac{2 H \text{Csc}[\theta]^2 \partial_3 h_{33}}{r^3} + \frac{H \partial_3 h}{r} - \frac{H \text{Csc}[\theta]^2 \partial_3 \partial_3 h_{13}}{r^2} \right) + t^2 \left(-\frac{H^2 \text{Cot}[\theta] h_{23}}{r^3} - \frac{5 H^2 h_{13}}{2 r^2} - \frac{H^2 \text{Cot}[\theta]^2 h_{13}}{2 r^2} + \frac{H^2 \text{Csc}[\theta]^2 h_{13}}{2 r^2} - \frac{1}{2} H^2 \partial_0 \partial_0 h_{13} + \frac{1}{2} H^2 \partial_1 \partial_1 h_{13} + \frac{1}{2} H^2 \partial_1 \partial_3 h - \frac{H^2 \text{Cot}[\theta] \partial_2 h_{13}}{2 r^2} - \frac{H^2 \partial_2 h_{23}}{r^3} + \frac{H^2 \partial_2 \partial_2 h_{13}}{2 r^2} + \frac{H^2 \partial_3 h_{11}}{r} + \frac{H^2 \text{Cot}[\theta] \partial_3 h_{12}}{r^2} - \frac{H^2 \text{Csc}[\theta]^2 \partial_3 h_{33}}{r^3} - \frac{H^2 \partial_3 h}{2 r} + \frac{H^2 \text{Csc}[\theta]^2 \partial_3 \partial_3 h_{13}}{2 r^2} \right)$$

$\theta\phi$

$$4\,H^2\,h_{23} - \frac{2\,\text{Cot}[\theta]^2\,h_{23}}{r^2} + \frac{\text{Csc}[\theta]^2\,h_{23}}{2\,r^2} - \frac{2\,\text{Cot}[\theta]\,h_{13}}{r} + H\,\partial_0 h_{23} - \frac{1}{2}\,\partial_0\partial_0 h_{23} - \frac{\partial_1 h_{23}}{r} +$$
$$\frac{1}{2}\,\partial_1\partial_1 h_{23} + \frac{\partial_2 h_{13}}{r} - \frac{\text{Cot}[\theta]\,\partial_2 h_{23}}{2\,r^2} + \frac{\partial_2\partial_2 h_{23}}{2\,r^2} + \frac{\partial_2\partial_3 h}{2} + \frac{\partial_3 h_{12}}{r} + \frac{\text{Cot}[\theta]\,\partial_3 h_{22}}{r^2} - \frac{\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,\partial_3 h_{33}}{r^2} -$$
$$\frac{1}{2}\,\text{Cot}[\theta]\,\partial_3 h + \frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{23}}{2\,r^2} + t\left(\frac{4\,H\,\text{Cot}[\theta]^2\,h_{23}}{r^2} - \frac{H\,\text{Csc}[\theta]^2\,h_{23}}{r^2} + \frac{4\,H\,\text{Cot}[\theta]\,h_{13}}{r} - H^2\,\partial_0 h_{23} +\right.$$
$$H\,\partial_0\partial_0 h_{23} + \frac{2\,H\,\partial_1 h_{23}}{r} - H\,\partial_1\partial_1 h_{23} - \frac{2\,H\,\partial_2 h_{13}}{r} + \frac{H\,\text{Cot}[\theta]\,\partial_2 h_{23}}{r^2} - \frac{H\,\partial_2\partial_2 h_{23}}{r^2} - H\,\partial_2\partial_3 h -$$
$$\left.\frac{2\,H\,\partial_3 h_{12}}{r} - \frac{2\,H\,\text{Cot}[\theta]\,\partial_3 h_{22}}{r^2} + \frac{2\,H\,\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,\partial_3 h_{33}}{r^2} + H\,\text{Cot}[\theta]\,\partial_3 h - \frac{H\,\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{23}}{r^2}\right) +$$
$$t^2\left(-\frac{2\,H^2\,\text{Cot}[\theta]^2\,h_{23}}{r^2} + \frac{H^2\,\text{Csc}[\theta]^2\,h_{23}}{2\,r^2} - \frac{2\,H^2\,\text{Cot}[\theta]\,h_{13}}{r} - \frac{1}{2}\,H^2\,\partial_0\partial_0 h_{23} - \frac{H^2\,\partial_1 h_{23}}{r} +\right.$$
$$\frac{1}{2}\,H^2\,\partial_1\partial_1 h_{23} + \frac{H^2\,\partial_2 h_{13}}{r} - \frac{H^2\,\text{Cot}[\theta]\,\partial_2 h_{23}}{2\,r^2} + \frac{H^2\,\partial_2\partial_2 h_{23}}{2\,r^2} + \frac{1}{2}\,H^2\,\partial_2\partial_3 h + \frac{H^2\,\partial_3 h_{12}}{r} +$$
$$\left.\frac{H^2\,\text{Cot}[\theta]\,\partial_3 h_{22}}{r^2} - \frac{H^2\,\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,\partial_3 h_{33}}{r^2} - \frac{1}{2}\,H^2\,\text{Cot}[\theta]\,\partial_3 h + \frac{H^2\,\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{23}}{2\,r^2}\right)$$

In the limit $H \to 0$,

tt	$-\frac{1}{2}\partial_0\partial_0 h_{00} + \frac{\partial_1 h_{00}}{r} + \frac{\partial_1 h}{r} + \frac{1}{2}\partial_1\partial_1 h_{00} + \frac{\partial_1\partial_1 h}{2} + \frac{\cot[\theta]\,\partial_2 h_{00}}{2r^2} + \frac{\cot[\theta]\,\partial_2 h}{2r^2} + \frac{\partial_2\partial_2 h_{00}}{2r^2} + \frac{\partial_2\partial_2 h}{2r^2} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{00}}{2r^2} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2r^2}$
rr	$\frac{h_{22}}{r^4} + \frac{\csc[\theta]^2 h_{33}}{r^4} - \frac{2\cot[\theta]\,h_{12}}{r^3} - \frac{2h_{11}}{r^2} - \frac{1}{2}\partial_0\partial_0 h_{11} + \frac{\partial_0\partial_0 h}{2} + \frac{\partial_1 h_{11}}{r} - \frac{\partial_1 h}{r} + \frac{1}{2}\partial_1\partial_1 h_{11} + \frac{\cot[\theta]\,\partial_2 h_{11}}{2r^2} - \frac{2\partial_2 h_{12}}{r^3} - \frac{\cot[\theta]\,\partial_2 h}{2r^2} + \frac{\partial_2\partial_2 h_{11}}{2r^2} - \frac{\partial_2\partial_2 h}{2r^2} - \frac{2\csc[\theta]^2\,\partial_3 h_{13}}{r^3} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{11}}{2r^2} - \frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2r^2}$
θθ	$h_{11} - \frac{\cot[\theta]^2 h_{22}}{r^2} + \frac{\cot[\theta]^2\csc[\theta]^2 h_{33}}{r^2} - \frac{1}{2}\partial_0\partial_0 h_{22} + \frac{1}{2}r^2\partial_0\partial_0 h - \frac{\partial_1 h_{22}}{r} - \frac{r\,\partial_1 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{22} - \frac{1}{2}r^2\partial_1\partial_1 h + \frac{2\partial_2 h_{12}}{r} + \frac{\cot[\theta]\,\partial_2 h_{22}}{2r^2} - \frac{1}{2}\cot[\theta]\,\partial_2 h + \frac{\partial_2\partial_2 h_{22}}{2r^2} - \frac{2\cot[\theta]\csc[\theta]^2\partial_3 h_{23}}{r^2} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{22}}{2r^2} - \frac{1}{2}\csc[\theta]^2\,\partial_3\partial_3 h$
φφ	$\frac{\cos[\theta]^2 h_{22}}{r^2} + \frac{\csc[\theta]^2 h_{33}}{r^2} + \frac{2\cos[\theta]\,h_{12}\sin[\theta]}{r} + h_{11}\sin[\theta]^2 - \frac{1}{2}\partial_0\partial_0 h_{33} + \frac{1}{2}r^2\sin[\theta]^2\partial_0\partial_0 h - \frac{\partial_1 h_{33}}{r} - \frac{1}{2}r\sin[\theta]^2\partial_1 h + \frac{1}{2}\partial_1\partial_1 h_{33} - \frac{1}{2}r^2\sin[\theta]^2\partial_1\partial_1 h - \frac{3\cot[\theta]\,\partial_2 h_{33}}{2r^2} + \frac{\partial_2\partial_2 h_{33}}{2r^2} - \frac{1}{2}\sin[\theta]^2\partial_2\partial_2 h + \frac{2\partial_3 h_{13}}{r} + \frac{2\cot[\theta]\,\partial_3 h_{23}}{r^2} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{33}}{2r^2}$
tr	$-\frac{\cot[\theta]\,h_{02}}{r^3} - \frac{h_{01}}{r^2} - \frac{1}{2}\partial_0\partial_0 h_{01} + \frac{\partial_0\partial_1 h}{2} + \frac{\partial_1 h_{01}}{r} + \frac{1}{2}\partial_1\partial_1 h_{01} + \frac{\cot[\theta]\,\partial_2 h_{01}}{2r^2} - \frac{\partial_2 h_{02}}{r^3} + \frac{\partial_2\partial_2 h_{01}}{2r^2} - \frac{\csc[\theta]^2\,\partial_3 h_{03}}{r^3} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{01}}{2r^2}$
tθ	$-\frac{h_{02}}{2r^2} - \frac{\cot[\theta]^2 h_{02}}{2r^2} - \frac{1}{2}\partial_0\partial_0 h_{02} + \frac{\partial_0\partial_2 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{02} + \frac{\partial_2 h_{01}}{r} + \frac{\cot[\theta]\,\partial_2 h_{02}}{2r^2} + \frac{\partial_2\partial_2 h_{02}}{2r^2} - \frac{\cot[\theta]\csc[\theta]^2\partial_3 h_{03}}{r^2} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{02}}{2r^2}$
tφ	$-\frac{h_{03}}{2r^2} - \frac{\cot[\theta]^2 h_{03}}{2r^2} + \frac{\csc[\theta]^2 h_{03}}{2r^2} - \frac{1}{2}\partial_0\partial_0 h_{03} + \frac{\partial_0\partial_3 h}{2} + \frac{1}{2}\partial_1\partial_1 h_{03} - \frac{\cot[\theta]\,\partial_2 h_{03}}{2r^2} + \frac{\partial_2\partial_2 h_{03}}{2r^2} + \frac{\partial_3 h_{01}}{r} + \frac{\cot[\theta]\,\partial_3 h_{02}}{r^2} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{03}}{2r^2}$
rθ	$-\frac{\cot[\theta]\,h_{22}}{r^3} + \frac{\cot[\theta]\csc[\theta]^2 h_{33}}{r^3} - \frac{5h_{12}}{2r^2} - \frac{\cot[\theta]^2 h_{12}}{2r^2} - \frac{1}{2}\partial_0\partial_0 h_{12} + \frac{1}{2}\partial_1\partial_1 h_{12} + \frac{\partial_1\partial_2 h}{2} + \frac{\partial_2 h_{11}}{r} + \frac{\cot[\theta]\,\partial_2 h_{12}}{2r^2} - \frac{\partial_2 h_{22}}{r^3} - \frac{\partial_2 h}{2r} + \frac{\partial_2\partial_2 h_{12}}{2r^2} - \frac{\cot[\theta]\csc[\theta]^2\partial_3 h_{13}}{r^2} - \frac{\csc[\theta]^2\,\partial_3 h_{23}}{r^3} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{12}}{2r^2}$
rφ	$-\frac{\cot[\theta]\,h_{23}}{r^3} - \frac{5h_{13}}{2r^2} - \frac{\cot[\theta]^2 h_{13}}{2r^2} + \frac{\csc[\theta]^2 h_{13}}{2r^2} - \frac{1}{2}\partial_0\partial_0 h_{13} + \frac{1}{2}\partial_1\partial_1 h_{13} + \frac{\partial_1\partial_3 h}{2} - \frac{\cot[\theta]\,\partial_2 h_{13}}{2r^2} - \frac{\partial_2 h_{23}}{r^3} + \frac{\partial_2\partial_2 h_{13}}{2r^2} + \frac{\partial_3 h_{11}}{r} + \frac{\cot[\theta]\,\partial_3 h_{12}}{r^2} - \frac{\csc[\theta]^2\,\partial_3 h_{33}}{r^3} - \frac{\partial_3 h}{2r} + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{13}}{2r^2}$
θφ	$-\frac{2\cot[\theta]^2 h_{23}}{r^2} + \frac{\csc[\theta]^2 h_{23}}{2r^2} - \frac{2\cot[\theta]\,h_{13}}{r} - \frac{1}{2}\partial_0\partial_0 h_{23} - \frac{\partial_1 h_{23}}{r} + \frac{1}{2}\partial_1\partial_1 h_{23} + \frac{\partial_2 h_{13}}{r} - \frac{\cot[\theta]\,\partial_2 h_{23}}{2r^2} + \frac{\partial_2\partial_2 h_{23}}{2r^2} + \frac{\partial_2\partial_3 h}{2} + \frac{\partial_3 h_{12}}{r} + \frac{\cot[\theta]\,\partial_3 h_{22}}{r^2} - \frac{\cot[\theta]\csc[\theta]^2\partial_3 h_{33}}{r^2} - \frac{1}{2}\cot[\theta]\,\partial_3 h + \frac{\csc[\theta]^2\,\partial_3\partial_3 h_{23}}{2r^2}$

Ω(t) Polar

"Transverse" gauge (J=Q=P=0):

tt

$$-\frac{\partial_0\partial_0 h_{00}}{2\,\Omega[t]^2}+\frac{\partial_1 h_{00}}{r\,\Omega[t]^2}+\frac{\partial_1 h}{r\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{00}}{2\,\Omega[t]^2}+\frac{\partial_1\partial_1 h}{2\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h_{00}}{2\,r^2\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{00}}{2\,r^2\,\Omega[t]^2}+$$
$$\frac{\partial_2\partial_2 h}{2\,r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{00}}{2\,r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{00}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}+\frac{2\,h_{00}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2\,h\,\Omega'[t]^2}{\Omega[t]^4}$$

rr

$$\frac{h_{22}}{r^4\,\Omega[t]^2}+\frac{\csc[\theta]^2\,h_{33}}{r^4\,\Omega[t]^2}-\frac{2\cot[\theta]\,h_{12}}{r^3\,\Omega[t]^2}-\frac{2\,h_{11}}{r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{11}}{2\,\Omega[t]^2}+\frac{\partial_0\partial_0 h}{2\,\Omega[t]^2}+\frac{\partial_1 h_{11}}{r\,\Omega[t]^2}-\frac{\partial_1 h}{r\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{11}}{2\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h_{11}}{2\,r^2\,\Omega[t]^2}-$$
$$\frac{2\,\partial_2 h_{12}}{r^3\,\Omega[t]^2}-\frac{\cot[\theta]\,\partial_2 h}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{11}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_2\partial_2 h}{2\,r^2\,\Omega[t]^2}-\frac{2\csc[\theta]^2\,\partial_3 h_{13}}{r^3\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{11}}{2\,r^2\,\Omega[t]^2}-\frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2\,r^2\,\Omega[t]^2}+$$
$$\frac{\partial_0 h_{11}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{00}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2\,h_{11}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h\,\Omega'[t]^2}{\Omega[t]^4}+\frac{h_{00}\,\Omega''[t]}{\Omega[t]^3}+\frac{3\,h_{11}\,\Omega''[t]}{\Omega[t]^3}-\frac{h\,\Omega''[t]}{\Omega[t]^3}$$

θθ

$$\frac{h_{11}}{\Omega[t]^2}-\frac{\cot[\theta]^2\,h_{22}}{r^2\,\Omega[t]^2}+\frac{\cot[\theta]^2\csc[\theta]^2\,h_{33}}{r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{22}}{2\,\Omega[t]^2}+\frac{r^2\,\partial_0\partial_0 h}{2\,\Omega[t]^2}-\frac{\partial_1 h_{22}}{r\,\Omega[t]^2}-\frac{r\,\partial_1 h}{2\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{22}}{2\,\Omega[t]^2}-\frac{r^2\,\partial_1\partial_1 h}{2\,\Omega[t]^2}+$$
$$\frac{2\,\partial_2 h_{12}}{r\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h_{22}}{2\,r^2\,\Omega[t]^2}-\frac{\cot[\theta]\,\partial_2 h}{2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{22}}{2\,r^2\,\Omega[t]^2}-\frac{2\cot[\theta]\csc[\theta]^2\,\partial_3 h_{23}}{r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{22}}{2\,r^2\,\Omega[t]^2}-\frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2\,\Omega[t]^2}+$$
$$\frac{\partial_0 h_{22}\,\Omega'[t]}{\Omega[t]^3}-\frac{r^2\,\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{22}\,\Omega'[t]^2}{\Omega[t]^4}-\frac{2\,h_{00}\,r^2\,\Omega'[t]^2}{\Omega[t]^4}+\frac{r^2\,h\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{22}\,\Omega''[t]}{\Omega[t]^3}+\frac{h_{00}\,r^2\,\Omega''[t]}{\Omega[t]^3}-\frac{r^2\,h\,\Omega''[t]}{\Omega[t]^3}$$

φφ

$$\frac{\cos[\theta]^2\,h_{22}}{r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,h_{33}}{r^2\,\Omega[t]^2}+\frac{2\cos[\theta]\,h_{12}\sin[\theta]}{r\,\Omega[t]^2}+\frac{h_{11}\sin[\theta]^2}{\Omega[t]^2}-\frac{\partial_0\partial_0 h_{33}}{2\,\Omega[t]^2}+\frac{r^2\sin[\theta]^2\,\partial_0\partial_0 h}{2\,\Omega[t]^2}-$$
$$\frac{\partial_1 h_{33}}{r\,\Omega[t]^2}-\frac{r\sin[\theta]^2\,\partial_1 h}{2\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{33}}{2\,\Omega[t]^2}-\frac{r^2\sin[\theta]^2\,\partial_1\partial_1 h}{2\,\Omega[t]^2}-\frac{3\cot[\theta]\,\partial_2 h_{33}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{33}}{2\,r^2\,\Omega[t]^2}-\frac{\sin[\theta]^2\,\partial_2\partial_2 h}{2\,\Omega[t]^2}+$$
$$\frac{2\,\partial_3 h_{13}}{r\,\Omega[t]^2}+\frac{2\cot[\theta]\,\partial_3 h_{23}}{r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{33}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{33}\,\Omega'[t]}{\Omega[t]^3}-\frac{r^2\sin[\theta]^2\,\partial_0 h\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{33}\,\Omega'[t]^2}{\Omega[t]^4}-$$
$$\frac{2\,h_{00}\,r^2\sin[\theta]^2\,\Omega'[t]^2}{\Omega[t]^4}+\frac{r^2\sin[\theta]^2\,h\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{33}\,\Omega''[t]}{\Omega[t]^3}+\frac{h_{00}\,r^2\sin[\theta]^2\,\Omega''[t]}{\Omega[t]^3}-\frac{r^2\sin[\theta]^2\,h\,\Omega''[t]}{\Omega[t]^3}$$

tr

$$-\frac{\cot[\theta]\,h_{02}}{r^3\,\Omega[t]^2}-\frac{h_{01}}{r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{01}}{2\,\Omega[t]^2}+\frac{\partial_0\partial_1 h}{2\,\Omega[t]^2}+\frac{\partial_1 h_{01}}{r\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{01}}{2\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h_{01}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_2 h_{02}}{r^3\,\Omega[t]^2}+$$
$$\frac{\partial_2\partial_2 h_{01}}{2\,r^2\,\Omega[t]^2}-\frac{\csc[\theta]^2\,\partial_3 h_{03}}{r^3\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{01}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{01}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_1 h\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{01}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2\,h_{01}\,\Omega''[t]}{\Omega[t]^3}$$

tθ

$$-\frac{h_{02}}{2\,r^2\,\Omega[t]^2}-\frac{\cot[\theta]^2\,h_{02}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{02}}{2\,\Omega[t]^2}+\frac{\partial_0\partial_2 h}{2\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{02}}{2\,\Omega[t]^2}+\frac{\partial_2 h_{01}}{r\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h_{02}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{02}}{2\,r^2\,\Omega[t]^2}-$$
$$\frac{\cot[\theta]\csc[\theta]^2\,\partial_3 h_{03}}{r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{02}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{02}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_2 h\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{02}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2\,h_{02}\,\Omega''[t]}{\Omega[t]^3}$$

tφ

$$-\frac{h_{03}}{2\,r^2\,\Omega[t]^2}-\frac{\cot[\theta]^2\,h_{03}}{2\,r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,h_{03}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{03}}{2\,\Omega[t]^2}+\frac{\partial_0\partial_3 h}{2\,\Omega[t]^2}+\frac{\partial_1\partial_1 h_{03}}{2\,\Omega[t]^2}-\frac{\cot[\theta]\,\partial_2 h_{03}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{03}}{2\,r^2\,\Omega[t]^2}+$$
$$\frac{\partial_3 h_{01}}{r\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_3 h_{02}}{r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{03}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{03}\,\Omega'[t]}{\Omega[t]^3}-\frac{\partial_3 h\,\Omega'[t]}{\Omega[t]^3}-\frac{h_{03}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{2\,h_{03}\,\Omega''[t]}{\Omega[t]^3}$$

rθ

$$-\frac{\cot[\theta]\,h_{22}}{r^3\,\Omega[t]^2}+\frac{\cot[\theta]\csc[\theta]^2\,h_{33}}{r^3\,\Omega[t]^2}-\frac{5\,h_{12}}{2\,r^2\,\Omega[t]^2}-\frac{\cot[\theta]^2\,h_{12}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{12}}{2\,\Omega[t]^2}+$$
$$\frac{\partial_1\partial_1 h_{12}}{2\,\Omega[t]^2}+\frac{\partial_1\partial_2 h}{2\,\Omega[t]^2}+\frac{\partial_2 h_{11}}{r\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_2 h_{12}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_2 h_{22}}{r^3\,\Omega[t]^2}-\frac{\partial_2 h}{2\,r\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{12}}{2\,r^2\,\Omega[t]^2}-$$
$$\frac{\cot[\theta]\csc[\theta]^2\,\partial_3 h_{13}}{r^2\,\Omega[t]^2}-\frac{\csc[\theta]^2\,\partial_3 h_{23}}{r^3\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{12}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{12}\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{12}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{12}\,\Omega''[t]}{\Omega[t]^3}$$

rφ

$$-\frac{\cot[\theta]\,h_{23}}{r^3\,\Omega[t]^2}-\frac{5\,h_{13}}{2\,r^2\,\Omega[t]^2}-\frac{\cot[\theta]^2\,h_{13}}{2\,r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,h_{13}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{13}}{2\,\Omega[t]^2}+$$
$$\frac{\partial_1\partial_1 h_{13}}{2\,\Omega[t]^2}+\frac{\partial_1\partial_3 h}{2\,\Omega[t]^2}-\frac{\cot[\theta]\,\partial_2 h_{13}}{2\,r^2\,\Omega[t]^2}-\frac{\partial_2 h_{23}}{r^3\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{13}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_3 h_{11}}{r\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_3 h_{12}}{r^2\,\Omega[t]^2}-$$
$$\frac{\csc[\theta]^2\,\partial_3 h_{33}}{r^3\,\Omega[t]^2}-\frac{\partial_3 h}{2\,r\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{13}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{13}\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{13}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{13}\,\Omega''[t]}{\Omega[t]^3}$$

θφ

$$-\frac{2\cot[\theta]^2\,h_{23}}{r^2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,h_{23}}{2\,r^2\,\Omega[t]^2}-\frac{2\cot[\theta]\,h_{13}}{r\,\Omega[t]^2}-\frac{\partial_0\partial_0 h_{23}}{2\,\Omega[t]^2}-\frac{\partial_1 h_{23}}{r\,\Omega[t]^2}+$$
$$\frac{\partial_1\partial_1 h_{23}}{2\,\Omega[t]^2}+\frac{\partial_2 h_{13}}{r\,\Omega[t]^2}-\frac{\cot[\theta]\,\partial_2 h_{23}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_2 h_{23}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_2\partial_3 h}{2\,\Omega[t]^2}+\frac{\partial_3 h_{12}}{r\,\Omega[t]^2}+\frac{\cot[\theta]\,\partial_3 h_{22}}{r^2\,\Omega[t]^2}-$$
$$\frac{\cot[\theta]\csc[\theta]^2\,\partial_3 h_{33}}{r^2\,\Omega[t]^2}-\frac{\cot[\theta]\,\partial_3 h}{2\,\Omega[t]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{23}}{2\,r^2\,\Omega[t]^2}+\frac{\partial_0 h_{23}\,\Omega'[t]}{\Omega[t]^3}-\frac{2\,h_{23}\,\Omega'[t]^2}{\Omega[t]^4}+\frac{3\,h_{23}\,\Omega''[t]}{\Omega[t]^3}$$

Ω(t,r) Polar

"Transverse" gauge (J=Q=P=0):

tt

$$-\frac{\partial_0\partial_0 h_{00}}{2\Omega[t,r]^2}+\frac{\partial_1 h_{00}}{r\Omega[t,r]^2}+\frac{\partial_1 h}{r\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{00}}{2\Omega[t,r]^2}+\frac{\partial_1\partial_1 h}{2\Omega[t,r]^2}+\frac{\cot[\theta]\,\partial_2 h_{00}}{2r^2\Omega[t,r]^2}+\frac{\cot[\theta]\,\partial_2 h}{2r^2\Omega[t,r]^2}+$$
$$\frac{\partial_2\partial_2 h_{00}}{2r^2\Omega[t,r]^2}+\frac{\partial_2\partial_2 h}{2r^2\Omega[t,r]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{00}}{2r^2\Omega[t,r]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2r^2\Omega[t,r]^2}-\frac{h_{22}\,\Omega^{(0,1)}[t,r]}{r^3\Omega[t,r]^3}-\frac{\csc[\theta]^2\,h_{33}\,\Omega^{(0,1)}[t,r]}{r^3\Omega[t,r]^3}-$$
$$\frac{6\,h_{00}\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}-\frac{2\,h\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}-\frac{\partial_1 h_{00}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{00}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}+$$
$$\frac{2\,h_{11}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}+\frac{h\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{3\,h_{00}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}-\frac{h_{11}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}-\frac{h\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{\partial_0 h_{00}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-$$
$$\frac{\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{6\,h_{01}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}+\frac{2\,h_{00}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{2\,h\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{4\,h_{01}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}$$

rr

$$\frac{h_{22}}{r^4\Omega[t,r]^2}+\frac{\csc[\theta]^2\,h_{33}}{r^4\Omega[t,r]^2}-\frac{2\cot[\theta]\,h_{12}}{r^3\Omega[t,r]^2}-\frac{2\,h_{11}}{r^2\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{11}}{2\Omega[t,r]^2}+\frac{\partial_0\partial_0 h}{2\Omega[t,r]^2}+\frac{\partial_1 h_{11}}{r\Omega[t,r]^2}-\frac{\partial_1 h}{r\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{11}}{2\Omega[t,r]^2}+$$
$$\frac{\cot[\theta]\,\partial_2 h_{11}}{2r^2\Omega[t,r]^2}-\frac{2\,\partial_2 h_{12}}{r^3\Omega[t,r]^2}-\frac{\cot[\theta]\,\partial_2 h}{2r^2\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{11}}{2r^2\Omega[t,r]^2}-\frac{\partial_2\partial_2 h}{2r^2\Omega[t,r]^2}-\frac{2\csc[\theta]^2\,\partial_3 h_{13}}{r^3\Omega[t,r]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{11}}{2r^2\Omega[t,r]^2}-$$
$$\frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2r^2\Omega[t,r]^2}+\frac{h_{22}\,\Omega^{(0,1)}[t,r]}{r^3\Omega[t,r]^3}+\frac{\csc[\theta]^2\,h_{33}\,\Omega^{(0,1)}[t,r]}{r^3\Omega[t,r]^3}-\frac{6\,h_{11}\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}+\frac{2\,h\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}-\frac{\partial_1 h_{11}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-$$
$$\frac{\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{2\,h_{11}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}+\frac{2\,h\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}+\frac{\partial_0 h_{11}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}+\frac{6\,h_{01}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-$$
$$\frac{2\,h_{00}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{11}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{h\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{4\,h_{01}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{h_{00}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}+\frac{3\,h_{11}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}-\frac{h\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$$

θθ

$$\frac{h_{11}}{\Omega[t,r]^2}-\frac{\cot[\theta]^2\,h_{22}}{r^2\Omega[t,r]^2}+\frac{\cot[\theta]^2\csc[\theta]^2\,h_{33}}{r^2\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{22}}{2\Omega[t,r]^2}+\frac{r^2\,\partial_0\partial_0 h}{2\Omega[t,r]^2}-\frac{\partial_1 h_{22}}{r\Omega[t,r]^2}-\frac{r\,\partial_1 h}{2\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{22}}{2\Omega[t,r]^2}-$$
$$\frac{r^2\,\partial_1\partial_1 h}{2\Omega[t,r]^2}+\frac{2\,\partial_2 h_{12}}{r\Omega[t,r]^2}+\frac{\cot[\theta]\,\partial_2 h_{22}}{2r^2\Omega[t,r]^2}-\frac{\cot[\theta]\,\partial_2 h}{2\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{22}}{2r^2\Omega[t,r]^2}-\frac{2\cot[\theta]\csc[\theta]^2\,\partial_3 h_{23}}{r^2\Omega[t,r]^2}+\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{22}}{2r^2\Omega[t,r]^2}-$$
$$\frac{\csc[\theta]^2\,\partial_3\partial_3 h}{2\Omega[t,r]^2}-\frac{h_{22}\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}+\frac{\csc[\theta]^2\,h_{33}\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}+\frac{r\,h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_1 h_{22}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{r^2\,\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+$$
$$\frac{2\,h_{22}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{11}\,r^2\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{r^2\,h\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{3\,h_{22}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{h_{11}\,r^2\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+$$
$$\frac{r^2\,h\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{\partial_0 h_{22}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{r^2\,\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}+\frac{4\,h_{01}\,r^2\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{2\,h_{22}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-$$
$$\frac{2\,h_{00}\,r^2\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{r^2\,h\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{01}\,r^2\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{3\,h_{22}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}+\frac{h_{00}\,r^2\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}-\frac{r^2\,h\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$$

ϕϕ

$$\frac{\cos[\theta]^2\,h_{22}}{r^2\Omega[t,r]^2}+\frac{\csc[\theta]^2\,h_{33}}{r^2\Omega[t,r]^2}+\frac{2\cos[\theta]\,h_{12}\sin[\theta]}{r\Omega[t,r]^2}+\frac{h_{11}\sin[\theta]^2}{\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{33}}{2\Omega[t,r]^2}+\frac{r^2\sin[\theta]^2\,\partial_0\partial_0 h}{2\Omega[t,r]^2}-\frac{\partial_1 h_{33}}{r\Omega[t,r]^2}-\frac{r\sin[\theta]^2\,\partial_1 h}{2\Omega[t,r]^2}+$$
$$\frac{\partial_1\partial_1 h_{33}}{2\Omega[t,r]^2}-\frac{r^2\sin[\theta]^2\,\partial_1\partial_1 h}{2\Omega[t,r]^2}-\frac{3\cot[\theta]\,\partial_2 h_{33}}{2r^2\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{33}}{2r^2\Omega[t,r]^2}-\frac{\sin[\theta]^2\,\partial_2\partial_2 h}{2\Omega[t,r]^2}+\frac{2\,\partial_3 h_{13}}{r\Omega[t,r]^2}+\frac{2\cot[\theta]\,\partial_3 h_{23}}{r^2\Omega[t,r]^2}+$$
$$\frac{\csc[\theta]^2\,\partial_3\partial_3 h_{33}}{2r^2\Omega[t,r]^2}-\frac{h_{33}\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}+\frac{h_{22}\sin[\theta]^2\,\Omega^{(0,1)}[t,r]}{r\Omega[t,r]^3}+\frac{r\sin[\theta]^2\,h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_1 h_{33}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+$$
$$\frac{r^2\sin[\theta]^2\,\partial_1 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{33}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{11}\,r^2\sin[\theta]^2\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{r^2\sin[\theta]^2\,h\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-$$
$$\frac{3\,h_{33}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{h_{11}\,r^2\sin[\theta]^2\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{r^2\sin[\theta]^2\,h\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{\partial_0 h_{33}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{r^2\sin[\theta]^2\,\partial_0 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}+$$
$$\frac{4\,h_{01}\,r^2\sin[\theta]^2\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{2\,h_{33}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{00}\,r^2\sin[\theta]^2\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{r^2\sin[\theta]^2\,h\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-$$
$$\frac{2\,h_{01}\,r^2\sin[\theta]^2\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{3\,h_{33}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}+\frac{h_{00}\,r^2\sin[\theta]^2\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}-\frac{r^2\sin[\theta]^2\,h\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$$

tr	$-\frac{\text{Cot}[\theta]\,h_{02}}{r^3\,\Omega[t,r]^2}-\frac{h_{01}}{r^2\,\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{01}}{2\,\Omega[t,r]^2}+\frac{\partial_0\partial_1 h}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{01}}{r\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{01}}{2\,\Omega[t,r]^2}+\frac{\text{Cot}[\theta]\,\partial_2 h_{01}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_2 h_{02}}{r^3\,\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{01}}{2\,r^2\,\Omega[t,r]^2}-$ $\frac{\text{Csc}[\theta]^2\,\partial_3 h_{03}}{r^3\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{01}}{2\,r^2\,\Omega[t,r]^2}-\frac{6\,h_{01}\,\Omega^{(0,1)}[t,r]}{r\,\Omega[t,r]^3}-\frac{\partial_0 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_1 h_{01}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{h_{01}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-$ $\frac{2\,h_{01}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{\partial_0 h_{01}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_1 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}+\frac{h_{00}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{h_{11}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}+$ $\frac{3\,h\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{h_{01}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{h_{00}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{h_{11}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}-\frac{h\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{01}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$
tθ	$-\frac{h_{02}}{2\,r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]^2\,h_{02}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{02}}{2\,\Omega[t,r]^2}+\frac{\partial_0\partial_2 h}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{02}}{2\,\Omega[t,r]^2}+\frac{\partial_2 h_{01}}{r\,\Omega[t,r]^2}+\frac{\text{Cot}[\theta]\,\partial_2 h_{02}}{2\,r^2\,\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{02}}{2\,r^2\,\Omega[t,r]^2}-$ $\frac{\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,\partial_3 h_{03}}{r^2\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{02}}{2\,r^2\,\Omega[t,r]^2}-\frac{4\,h_{02}\,\Omega^{(0,1)}[t,r]}{r\,\Omega[t,r]^3}-\frac{\partial_1 h_{02}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{02}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{3\,h_{02}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+$ $\frac{\partial_0 h_{02}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_2 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{h_{12}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{h_{02}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{h_{12}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{02}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$
tϕ	$-\frac{h_{03}}{2\,r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]^2\,h_{03}}{2\,r^2\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,h_{03}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{03}}{2\,\Omega[t,r]^2}+\frac{\partial_0\partial_3 h}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{03}}{2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]\,\partial_2 h_{03}}{2\,r^2\,\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{03}}{2\,r^2\,\Omega[t,r]^2}+\frac{\partial_3 h_{01}}{r\,\Omega[t,r]^2}+$ $\frac{\text{Cot}[\theta]\,\partial_3 h_{02}}{r^2\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{03}}{2\,r^2\,\Omega[t,r]^2}-\frac{4\,h_{03}\,\Omega^{(0,1)}[t,r]}{r\,\Omega[t,r]^3}-\frac{\partial_1 h_{03}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{03}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{3\,h_{03}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+$ $\frac{\partial_0 h_{03}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_3 h\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{h_{13}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{h_{03}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{h_{13}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{03}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$
rθ	$-\frac{\text{Cot}[\theta]\,h_{22}}{r^3\,\Omega[t,r]^2}+\frac{\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,h_{33}}{r^3\,\Omega[t,r]^2}-\frac{5\,h_{12}}{2\,r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]^2\,h_{12}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{12}}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{12}}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_2 h}{2\,\Omega[t,r]^2}+$ $\frac{\partial_2 h_{11}}{r\,\Omega[t,r]^2}+\frac{\text{Cot}[\theta]\,\partial_2 h_{12}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_2 h_{22}}{r^3\,\Omega[t,r]^2}-\frac{\partial_2 h}{2\,r\,\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{12}}{2\,r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,\partial_3 h_{13}}{r^2\,\Omega[t,r]^2}-\frac{\text{Csc}[\theta]^2\,\partial_3 h_{23}}{r^3\,\Omega[t,r]^2}+$ $\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{12}}{2\,r^2\,\Omega[t,r]^2}-\frac{4\,h_{12}\,\Omega^{(0,1)}[t,r]}{r\,\Omega[t,r]^3}-\frac{\partial_1 h_{12}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_2 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{h_{12}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{12}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+$ $\frac{\partial_0 h_{12}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}+\frac{h_{02}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{2\,h_{12}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{h_{02}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{3\,h_{12}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$
rϕ	$-\frac{\text{Cot}[\theta]\,h_{23}}{r^3\,\Omega[t,r]^2}-\frac{5\,h_{13}}{2\,r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]^2\,h_{13}}{2\,r^2\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,h_{13}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{13}}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{13}}{2\,\Omega[t,r]^2}+\frac{\partial_1\partial_3 h}{2\,\Omega[t,r]^2}-$ $\frac{\text{Cot}[\theta]\,\partial_2 h_{13}}{2\,r^2\,\Omega[t,r]^2}-\frac{\partial_2 h_{23}}{r^3\,\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{13}}{2\,r^2\,\Omega[t,r]^2}+\frac{\partial_3 h_{11}}{r\,\Omega[t,r]^2}+\frac{\text{Cot}[\theta]\,\partial_3 h_{12}}{r^2\,\Omega[t,r]^2}-\frac{\text{Csc}[\theta]^2\,\partial_3 h_{33}}{r^3\,\Omega[t,r]^2}-\frac{\partial_3 h}{2\,r\,\Omega[t,r]^2}+$ $\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{13}}{2\,r^2\,\Omega[t,r]^2}-\frac{4\,h_{13}\,\Omega^{(0,1)}[t,r]}{r\,\Omega[t,r]^3}-\frac{\partial_1 h_{13}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}-\frac{\partial_3 h\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{h_{13}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{2\,h_{13}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+$ $\frac{\partial_0 h_{13}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}+\frac{h_{03}\,\Omega^{(0,1)}[t,r]\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^4}-\frac{2\,h_{13}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}-\frac{h_{03}\,\Omega^{(1,1)}[t,r]}{\Omega[t,r]^3}+\frac{3\,h_{13}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$
$\theta\phi$	$-\frac{2\,\text{Cot}[\theta]^2\,h_{23}}{r^2\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,h_{23}}{2\,r^2\,\Omega[t,r]^2}-\frac{2\,\text{Cot}[\theta]\,h_{13}}{r\,\Omega[t,r]^2}-\frac{\partial_0\partial_0 h_{23}}{2\,\Omega[t,r]^2}-\frac{\partial_1 h_{23}}{r\,\Omega[t,r]^2}+\frac{\partial_1\partial_1 h_{23}}{2\,\Omega[t,r]^2}+\frac{\partial_2 h_{13}}{r\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]\,\partial_2 h_{23}}{2\,r^2\,\Omega[t,r]^2}+\frac{\partial_2\partial_2 h_{23}}{2\,r^2\,\Omega[t,r]^2}+$ $\frac{\partial_2\partial_3 h}{2\,\Omega[t,r]^2}+\frac{\partial_3 h_{12}}{r\,\Omega[t,r]^2}+\frac{\text{Cot}[\theta]\,\partial_3 h_{22}}{r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]\,\text{Csc}[\theta]^2\,\partial_3 h_{33}}{r^2\,\Omega[t,r]^2}-\frac{\text{Cot}[\theta]\,\partial_3 h}{2\,\Omega[t,r]^2}+\frac{\text{Csc}[\theta]^2\,\partial_3\partial_3 h_{23}}{2\,r^2\,\Omega[t,r]^2}-\frac{2\,h_{23}\,\Omega^{(0,1)}[t,r]}{r\,\Omega[t,r]^3}-$ $\frac{\partial_1 h_{23}\,\Omega^{(0,1)}[t,r]}{\Omega[t,r]^3}+\frac{2\,h_{23}\,\Omega^{(0,1)}[t,r]^2}{\Omega[t,r]^4}-\frac{3\,h_{23}\,\Omega^{(0,2)}[t,r]}{\Omega[t,r]^3}+\frac{\partial_0 h_{23}\,\Omega^{(1,0)}[t,r]}{\Omega[t,r]^3}-\frac{2\,h_{23}\,\Omega^{(1,0)}[t,r]^2}{\Omega[t,r]^4}+\frac{3\,h_{23}\,\Omega^{(2,0)}[t,r]}{\Omega[t,r]^3}$

RW Metrics for K=1,-1 do not appear to diagonalize either.