

Report MK1

Me

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Some formulas

$$G_{00} = a^2(-6\phi(H' + 2H^2) - 6a^2(\psi + W'')(H' + 3H^2) + \nabla^2\psi(1 + \frac{1}{a^2}) + 3\psi'' - H[3(a^2 - 4)\psi' + 3a^2W'' + 4\nabla^2W'])$$

(1a)

$$G_{0i} = \{aa'(B' + 6W'_{;0}) - (a^2 + 2)\psi_{;0} + 3a^4B(H' + 2H^2)\}_{;i} \quad (1b)$$

$$G_{ij} = a^2\{[-6(H' + 3H^2)(\psi(a^2 - 1) + a^2W'') - 4H(\phi' + \nabla^2W' - B'_{;0} - 2\psi') + \nabla^2\psi - \psi_{;0}(1 + \frac{2}{a^2}) - 3aa'(W''' + \psi') + \frac{1}{a^2}\nabla^2(\psi - \phi - W_{;;0} + B_{;0}) + (B_{;0} - W_{;;0} - \phi + 2\psi'')\delta_{ij} + \{6W(H' + 2H^2) + 6HW' - \psi(1 + \frac{1}{a^2}) + \frac{1}{a^2}(\phi - B_{;0} + W_{;;0})\}_{;ij}\}$$

(1c)

$$G_{r0} = aa'(B'' + 3(\psi_{;0} + W''_{;0})) - 3\psi'_{;0} + 3B'a^4(H' + 2H^2) \quad (1d)$$

$$G_{ri} = a^2\{6(H' + 2H^2)W' + 3H(\psi + W'') + \frac{1}{a^2}(\phi' - B'_{;0} - 2\psi' + W'_{;;0})\}_{;i} \quad (1e)$$

$$G_{rr} = 3H(3\psi - \phi - \nabla^2W + B_{;0})' + \frac{1}{a^2}\nabla^2(2\psi - \phi + B_{;0} - W_{;;0}) - \frac{3}{a^2}\psi_{;;0} \quad (1f)$$