

Erratum

Erratum to “Four-dimensional Walker metrics and symplectic structures” [J. Geom. Phys. 52 (2004) 89–99]

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The second term $\frac{1}{2}(\frac{ab}{H} + aK + \frac{b}{K}) dx^3 \wedge dx^4$ in (22) should read $\frac{1}{2}(\frac{ab}{H} + H) dx^3 \wedge dx^4$.
Then, the corrected Eq. (22) is as follows:

$$\Omega'_g = \frac{1}{H} \left(2 dx^1 \wedge dx^2 + b dx^1 \wedge dx^4 - a dx^2 \wedge dx^3 \right) + \frac{1}{2} \left(\frac{ab}{H} + H \right) dx^3 \wedge dx^4. \quad (22)$$

Due to this error, the last two equations in (32)–(34) are not correct.

Then the equations (32)–(34) should read as follows:

$$\begin{aligned} H \frac{\partial a}{\partial x^1} - a \frac{\partial H}{\partial x^1} + 2 \frac{\partial H}{\partial x^3} &= 0, & H \frac{\partial b}{\partial x^2} - b \frac{\partial H}{\partial x^2} + 2 \frac{\partial H}{\partial x^4} &= 0, \\ a \frac{\partial b}{\partial x^1} - 2 \frac{\partial b}{\partial x^3} + H \frac{\partial H}{\partial x^1} &= 0, & b \frac{\partial a}{\partial x^2} - 2 \frac{\partial a}{\partial x^4} + H \frac{\partial H}{\partial x^2} &= 0. \end{aligned} \quad (32)$$

$$\frac{\partial a}{\partial x^1} = 0, \quad \frac{\partial b}{\partial x^2} = 0,$$

$$a \frac{\partial b}{\partial x^1} - 2 \frac{\partial b}{\partial x^3} = 0, \quad b \frac{\partial a}{\partial x^2} - 2 \frac{\partial a}{\partial x^4} = 0. \quad (33)$$

$$\begin{aligned} J' \frac{\partial}{\partial x^1} &= -\frac{1}{H} \left(a \frac{\partial}{\partial x^2} - 2 \frac{\partial}{\partial x^4} \right), & J' \frac{\partial}{\partial x^2} &= \frac{1}{H} \left(a \frac{\partial}{\partial x^1} - 2 \frac{\partial}{\partial x^3} \right), \\ J' \frac{\partial}{\partial x^3} &= \frac{1}{H} \left(2 \frac{\partial}{\partial x^2} + a \frac{\partial}{\partial x^4} \right), & J' \frac{\partial}{\partial x^4} &= -\frac{1}{H} \left(2 \frac{\partial}{\partial x^1} + a \frac{\partial}{\partial x^3} \right). \end{aligned} \quad (34)$$

These corrections, however, do not affect any statement in the paper.

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