Erratum


By BING YE WU (Fuzhou)

The formula (4.3) is incorrect. It should be the following:

\[
\tilde{\mathcal{R}} \left( \frac{\partial}{\partial y^l}, \frac{\partial}{\partial y^j} \right) \frac{\partial}{\partial y^k} = \tilde{\nabla} \left( \frac{\partial}{\partial y^l} \right) \tilde{\nabla} \left( \frac{\partial}{\partial y^j} \right) - \tilde{\nabla} \left( \frac{\partial}{\partial y^j} \right) \tilde{\nabla} \left( \frac{\partial}{\partial y^l} \right) - \tilde{\nabla} \left( \frac{\partial}{\partial y^k} \right) \tilde{\nabla} \left( \frac{\partial}{\partial y^i} \right) \frac{\partial}{\partial y^k}
\]

\[
= \left( \frac{\partial L^l_{jk}}{\partial y^i} - \frac{\partial L^l_{ik}}{\partial y^j} + L^s_{jk} C^l_{si} + C^s_{jk} L^l_{si} - L^s_{ik} C^l_{sj} - C^s_{ik} L^l_{sj} \right)
\]

\[
+ \frac{1}{2} L^l_{jk} y^s R_{sit}^l - \frac{1}{2} L^l_{ik} y^s R_{sjt}^l \right) \frac{\delta}{\delta x^l}
\]

\[
+ \left( L^s_{ik} L^l_{js} - L^s_{jk} L^l_{is} + C^s_{ik} C^l_{js} - C^s_{jk} C^l_{is} \right) \frac{\partial}{\partial y^l},
\]

where the last two terms \( C^s_{ik} C^l_{js} - C^s_{jk} C^l_{is} \) were missed in the original paper. Fortunately, we need only to make a minor modification. Assume that \( \tilde{\nabla} \tilde{\mathcal{R}} = 0 \), then by (2.3), (4.3), (4.4) and Lemma 2.1 we have

\[
0 = y^j \left( \tilde{\nabla} \tilde{\mathcal{R}} \left( \frac{\partial}{\partial y^i}, \frac{\partial}{\partial y^j} \right) \right) \frac{\partial}{\partial y^k} = y^j \tilde{\nabla} \left( \tilde{\mathcal{R}} \left( \frac{\partial}{\partial y^i}, \frac{\partial}{\partial y^j} \right) \right) \frac{\partial}{\partial y^k}
\]

\[
= -y^j \frac{\partial L^l_{jk}}{\partial y^i} \frac{\delta}{\delta x^l} = L^l_{jk} \frac{\delta}{\delta x^l},
\]

and hence, \( L^l_{jk} = 0 \), which together with (4.3) yields

\[
\tilde{\mathcal{R}} \left( \frac{\partial}{\partial y^i}, \frac{\partial}{\partial y^j} \right) \frac{\partial}{\partial y^k} = (C^s_{ik} C^l_{js} - C^s_{jk} C^l_{is}) \frac{\partial}{\partial y^l}.
\]

The author is indebted to Professor Aurel Bejancu for pointing out the mistake.
Consequently,

\[ 0 = \left( \tilde{\nabla}_\eta \tilde{R} \right) \left( \frac{\partial}{\partial y^i}, \frac{\partial}{\partial y^j} \right) \frac{\partial}{\partial y^k} = -2 \left( C_{ik}^s C_{js}^l - C_{jk}^s C_{si}^l \right) \frac{\partial}{\partial y^l}, \]

and we again arrive at \( \tilde{R} \left( \frac{\partial}{\partial y^i}, \frac{\partial}{\partial y^j} \right) \frac{\partial}{\partial y^k} = 0. \)

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