Corrigendum to "On Riemannian manifolds admitting W_2-curvature tensor, Miskolc Math. Notes, Vol. 12(2011), No. 2, pp. 255–264."

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CORRIGENDUM

TO

On Riemannian manifolds admitting W_2-curvature tensor, Miskolc Math. Notes,
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1. In Abstract: The last sentence was changed as "In a radiative perfect fluid, it is shown that the sectional

curvature is constant"

2. In Theorem 5: The sentence of Theorem 5 must be changed as

"For a $(W_2FS)_4$, the energy momentum-tensor satisfying the Einstein's equations with a cosmological

constant is locally symmetric".

3. In the Proof of Theorem 5: (3.3) and (3.4) are true. (3.5)-(3.7) must be changed as the followings

$$\nabla_k T_{ij} = -\frac{1}{4k}(\nabla_k r)g_{ij} \tag{3.5}$$

Since r is constant in $(W_2FS)_4$,

$$\nabla_k r = 0 \tag{3.6}$$

then (3.5) reduces to

$$\nabla_k T_{ij} = 0$$

4. In Theorem 6: The sentence of theorem 6 must be changed as the following:

"For a $(W_2S)_4$ whose the Ricci tensor is quadratic Killing, a necessary and sufficient condition the energy-

momentum tensor satisfying the Einstein's equations with a cosmological constant be a quadratic Killing

tensor is that the scalar curvature of this space must be constant"

5. In the Proof of Theorem 6: The first sentence must be changed as "If T_{ij} and R_{ij} are quadratic Killing

tensors, (3.5) reduces to"

6. After the Proof of Theorem 6, (before the equation (3.9)), the first sentence must be changed as

"Now, we consider that a radiative perfect fluid in $(W_2S)_4$.

7. In Theorem 7: In Theorem 7 and the proof of this theorem (in the first sentence of the proof) $(W_2FS)_4$

must be changed as $(W_2 S)_4$.

8. <u>In Theorem 8:</u>

The sentence of this theorem must be changed as

"For a radiative perfect fluid in $(W_2 F S)_4$, the sectional curvature is constant."

9. <u>In the Proof of Theorem 8:</u> It must be deleted (3.20),(3.21) and (3.22). The first sentence must be "For a radiative perfect fluid in $(W_2 F S)_4$, the scalar curvature of this space is constant." The numbers of equations (3.23)-(3.26) must be (3.21)-(3.23).