

In the manuscript by A.H. Salas, J.E. Castillo and J.E. Pinzon “Calculation of the Cosmological constant for the Planetary System in the Schwarzschild’s Cosmological Model” the authors consider the Schwarzschild’s solution with the cosmological constant Λ and estimate with different methods acceptable values of Λ from the perihelion shift for the planets in the Solar system.

To my mind, this paper can be interesting for researchers in this field, but it needs improvement and correction of some errors before accepting.

The major points of criticism are:

1. The sign of the cosmological constant Λ in Eq. (2) contradicts the metric signature $(+ - - -)$ accepted in this paper in Eq. (5) and below (when we change signature $g_{\alpha\beta} \rightarrow -g_{\alpha\beta}$ we should change $\Lambda \rightarrow -\Lambda$ and $R \rightarrow -R$). This error passes through Eq. (14) and further. The authors should correct and clarify this point, because they estimate separately positive and negative Λ .

2. The sign “+” in Eq. (3) is wrong for any signature.

3. Errors in equations (8) (where the terms with Λ ?) should be corrected.

4. The authors present the metric (14) as their own discovery, but it is well known and they mention this fact and cite corresponding papers.

5. Eq. (15) has the error in sign, but this formula (equivalent to the previous one) may be omitted.

6. Equation (25) is obtained via differentiation of Eq. (24). Later (page 9) the authors integrate Eq. (25), but the resulting Eq. (52) they do not compare with the original Eq. (24) and have to search the constant of integration.

Minor points:

1. There is no figures in the available text.

2. There are some problems with long formulas and some typos in the text: “*sen*” instead of “sin” in Eqs. (6), (14) – (16), “*apelion*” (pages 6 and 7),

The manuscript needs revision.