

Review of: "Re-Examination of Penrose's Space-Time Singularity and the Origin of Protons in Astrophysical Jets"

S. O. Komarov

Potential competing interests: No potential competing interests to declare.

The singularities are a very interesting but still discussive topic (see e.g. [1]). In the manuscript under review, the author makes an attempt to solve this problem. The statements of the author are not true in the framework of General Theory of Relativity, but he does not propose any other theory that completely describes all effects of the gravitational field considered in the article (light bending, gravitational collapse, black holes). The argumentation of the author does not stand up to criticism. For example, the space curvature has approximately zero value only in the average sense on large scales (see e.g. [2]), but singularities have meaning only on small scales, and the statement in the manuscript, "stellar objects cannot curve universal space and that the space-time singularity model has no physical existence," is therefore completely wrong. Moreover, we cannot say that the sum of the angles in a triangulum in the Solar system is exactly 180 because of the curvature of space-time in this region (planets in the Solar system follow geodesic lines that are obviously not usual straight lines).

Due to this, I think that the present manuscript is not appropriate for publication in such a scientific journal as Qeios.

1. R. P. Kerr, *Do Black Holes have Singularities?* (2023) <https://arxiv.org/pdf/2312.00841.pdf>
2. C. W. Misner, S. Thorne, and J. Wheeler. *Gravitation*. W. H. Freeman and Company, San Francisco, 1973.