Review of: "Reevaluating Cosmic Origins: A Critical Analysis of Relic Radiation and Cosmometric Assumptions in Big Bang Cosmology"

Hossein Ghaffarnejad[1]

1 Semnan University

Potential competing interests: No potential competing interests to declare.

I have read the present article and also seen the comments of the reviewers. While I confirm all of them, they have reviewed the article from different aspects, so some questions have been created for me, the answers to which may lead to the improvement of the next edition of the article.

I present my questions as follows: In the very tiny scale of the newly born universe, where matter and radiation all have quantum behavior, it is natural that the principle of isotropy in space is not acceptable in standard cosmology, especially since the quantum behavior of gravity is not respected anywhere in general relativity. Therefore, it is clear that general relativity is not a comprehensive theory that explains all stages of the creation of the universe. For this reason, other alternative gravitation theories were invented instead of the general relativity theory; for example, the Hoyle-Narlikar gravity, Brans-Dicke scalar-tensor gravity, and scalar-vector-tensor gravities, same as the MOND Moffat model. These alternative models also explain the inflationary expanding model containing the Big Bang origin. They explain many of the problems in standard cosmology addressed in this paper.

For example, in the quantum cosmological regime of these alternative gravities, the uncertainty principle controls the spatial singularity of the Big Bang, which is not to be a zero-scale point. Looking at the above-mentioned comment, I ask, why did the respected author not mention such more complete gravity models than general relativity in the article?

In addition, usually, if we want to present a new gravitational model to change the principles of standard cosmology, we must accurately calculate the differences in the measurement of observations between the presented model and the standard cosmological model based on general relativity, and we should show in an article what the superiority of the proposed model is to standard cosmology?

This importance is not seen quantitatively in the present article and is limited just to general explanations. This, in my opinion, is a flaw in the article. If we look at the history of physics, we will remember that all the physical models that were able to show their superiority did so only through the above. That is, measuring and comparing data with the published predictions of the proposed model.

Therefore, in order for this article to take on a specialized scientific structure, the respected author should avoid generalization and mere description and present a non-standard model of cosmology by precisely changing each of the

philosophical principles of standard cosmology, in which predictions of his model show its superiority and victory over the standard cosmological model based on general relativity.

Sincerely,