

Review of: "The big bang theory: two fatal flaws"

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I hope that my following comments, made in a constructive spirit, will be useful to the author.

This article incurs in some misconceptions regarding standard cosmology, which contribute to the logical inconsistencies it later points out. Firstly, the text seems to take for granted that the Big Bang is a localized event that originates from a specific location and spreads outwards like a conventional explosion. However, within the framework of standard cosmology, the Big Bang is not located in a particular point or region. Instead, even if the Big Bang occurs when the size of the universe is infinitesimal, all expansion occurs in terms of the same "region". No "new empty space" is generated on the border, but the distances between objects is what grows. From the perspective of a present-day observer, it is impossible to establish a center or source for the Big Bang since it would have occurred "everywhere".

Secondly, as indicated in some passages of the article, the explanation that standard cosmology offers is that the CMB is emitted when the universe cools enough so that neutral atoms can form. However, in other parts of the text the author seems to suggest that the CMB originates from the Big Bang itself. Additionally, as the CMB is released everywhere, what we observe is radiation that was emitted from places that are at the distance that light has been able to travel in all this time. We do not observe the radiation that was emitted here, nor in a certain source, but we receive the radiation released from all directions, it comes from a spherical surface whose radius is the distance that light could travel since then. In a way, concerning CMB emission, each point of the space would constitute a center like the one shown in Figure 1. For this reason, cosmologists use the term "last scattering surface". Observers in different places would detect different last scattering surfaces.