

Direct Detection of Cosmic Neutrino Background is impossible, Because there is no such thing as Cosmic Singularity

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Abstract

According to standard cosmology, neutrinos should be the most abundant particles in the Universe, after CMB photons. The CMB neutrino is the oldest relic, present since BBN era. However, in the past 5 decades or so, attempts to directly detect Cosmic Neutrino Background have never been succeeded. Taking into considerations two other findings in recent years: (a) Earth Microwave Background by P-M. Robitaille, and (b) theories which suggest that cosmic singularity can be removed; then I submit the following hypothesis: *Direct detection of Cosmic Neutrino Background is impossible because there is no such thing as Cosmic Singularity*. In other words, we come to conclusion that Big Bang Standard Cosmology fails completely.

Key Words: Cosmic Neutrino Background, relic neutrino density, cosmic singularity, big bang, direct detection

1. Introduction

Conventional standard cosmology (Hot Big Bang model) predicts the existence of relic photons in the Universe, remnants of the primordial plasma which became transparent about 380,000 years after the inferred big bang singularity. The hot big bang model also predicts that neutrinos and antineutrinos of all flavors become free-streaming particles at approximately one second after the big bang.[7]

However, one fact plagues all big bang cosmologists is the fact that Cosmic Neutrino Background has never been detected. Of course, many proposals have been suggested to detect CNB experimentally, for instance using beta decay nuclei, but it remains untested. For this author, such a fact opens up a clear possibility that the entire hot big bang industry fails, especially if we consider the discovery of Earth Microwave Background by Robitaille [3]. Such

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a discovery suggests that the standard interpretation of Cosmic Microwave Background Radiation is also wrong.[4][5][6]

2. Reasoning

Our reasoning goes as follows: According to Hot Big Bang scenario, few seconds after Big Bang event (cosmic singularity) there were only relic neutrinos. Then, 380,000 years later emerge relic photons which were detected by COBE and WMAP. Therefore, such a Cosmic Neutrino Background should be able to observe in present days, but unfortunately there is no such thing like direct detection of CNB so far. This fact leaves us with only two possibilities:

- a. We should develop new theories where such CNB are vanishing;
- b. The entire argument of Hot Big Bang fails.

Of course, we can wait for ever until new theories predicting vanishing CNB appear, and also we can come up novel techniques for direct detection of such CNB [8][9][10][11], but considering the following two discoveries:

- a. Discovery of Earth Microwave Background by Robitaille [3];
- b. Discovery of new theories which are capable to exclude cosmic singularity [1];

So it seems the only remaining possibility is that *there is no such thing as Cosmic Singularity*.

Concluding remarks

According to standard cosmology, neutrinos should be the most abundant particles in the Universe, after CMB photons. The CMB neutrino is the oldest relic, present since BBN era.

However, in the past 5 decades or so, attempts to directly detect Cosmic Neutrino Background have never been succeeded. Taking into considerations two other findings in recent years: (a) Earth Microwave Background by P-M. Robitaille, and (b) theories which suggest that cosmic singularity can be removed; then I submit the following hypothesis: *Direct detection of Cosmic Neutrino Background is impossible because there is no such thing as Cosmic Singularity*. In other words, we come to conclusion that Big Bang Standard Cosmology fails completely.

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