Review of: "Speed of Gravity: A Simple Experiment to Test the General Relativity Theory"

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Potential competing interests: No potential competing interests to declare.

This paper presents ideas and opinions by the author. As it is not written in a scientifically appropriate form, it would perhaps fit a section of comments/opinions of the journal, but not one dedicated to scientific articles.

For instance, the text lacks some references, as in: "Sergei Kopeikin and Edward Fomalont in 2002..."; "However, Ehlers et al., some..."; "LIGO claims that it could measure less ..."; "In 2014 the scientists behind the BICEP 2 telescope made ..."; "gravitational waves which are ripples in space-time"; "The scientists of LIGO-VIRGO believe that gravitational waves cause space itself to stretch in one direction and..."; "Stephen Crothers exposes ..."; "Cynthia K. Whitney thinks that (...)"; "...Dennis P. Allen Jr., and many others have..."; “I have received a practical suggestion from Jonathan Merrison...”

In scientific papers, metaphors as "full of holes large enough to drive trucks through" distract the reader from any scientific goal intended to be conveyed. Same for opinions, as they do not enrich the technical aspect that scientific papers have, e.g., the opinion:"LIGO may start a global call to attract a billion-dollar investment to prove Taylor’s contention for the orbital decay of the Earth and the planets!". There are sections in some journals that are dedicated for comments of this sort.

The calculation presented in the paper with the hypothetical binary pulsar is speculative because no physical source is presented for the assumed minuscule EM acceleration. Therefore, its use for comparison with a physical phenomenon must be exercised with caution.

The claim “Orbits of electrodynamic bodies should not be stable from electrodynamic viewpoint” should be proven mathematically with a proper physical model or be referred to a scientific work.

The claim "Gravitational radiation emission is decreasing the Earth’s orbit by a diameter of a proton every day" should be proven by showing how the calculation is performed or be referred to a scientific work.

In regard to "we could safely conclude that Taylor’s matching hardly proves Gravitational wave", presently there is no other physical mechanism that explains the decrease of the binary system's orbital period as well as gravitational wave (GW) emission. This decrease is generally said to be an indirect indication (not a proof, as the author correctly pointed out) of the existence of GW. For this reason, Taylor’s matching has been normally considered an indirect indication of the existence of GW.

In the sentence "The LIGO-VIRGO scientists assume that the speed of light in both the spaces that are steadily stretching

and steadily compressing is the same ‘c’ as that of light in free space", it is noteworthy that there are not 2 spaces but only one space-time. The latter is very different from space, whose physical properties should not be naively transposed to space-time.

The author's idea that "...matching this fluctuation [in solar activity] with seismic activity, it is possible to know whether there is a time lag of 499 seconds between the physical effects and electromagnetic effects propagated from the Sun to the Earth" requires the calculation of the sensitivity of the observation for the proposed goal, as the response of the Earth to such stimulus is likely to be delayed due to and/or masked by inertia, making the experiment inefficient for its objective.

The author is correct in that "...it has not been prove[n] to this day by experiments that the speed of light is the same ‘c’ in the stretched and contracted space[-time]s contrived by the relativists." However, for this same reason, the constancy of the speed of light in such space-time is not ruled out either, and it stands as a hypothesis that is part of the scientific foundation for the detections announced by the LIGO-VIRGO collaboration. Experiments to directly determine the speed of the propagation of gravity would be quite important indeed.