Review of: "Is the Special Relativity Compatible With Einstein’s Static Universe?Proposal for New “Generic” Transformations. The Twin Paradox"

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Potential competing interests: No potential competing interests to declare.

This paper is a thought-provoking critique of SRT in non-flat geometries and a bold proposal for alternative transformations. However, its reliance on the static universe and speculative extensions to Earth-based systems highlights the need for further theoretical refinement and experimental validation. If successful, the generic transformations could reshape our understanding of spacetime, inertial frames, and the fundamental nature of light. The paper challenges SRT's universality by identifying inconsistencies in non-flat geometries, sparking a broader debate on the interplay between relativity and cosmological models. However, its reliance on a static universe framework—refuted by observations—limits its relevance to modern physics. The paper speculates on the applicability of GTs beyond Einstein’s universe. The Hafele-Keating experiment and Sagnac effects are cited as phenomena better explained through GTs than SRT. Additionally, the proposal to adopt GTs on Earth, given its approximate spherical symmetry, is presented. The paper posits that Einstein's static universe inherently conflicts with SRT due to the emergence of a privileged frame of reference and the non-constant speed of light ccc. These observations challenge SRT’s principles, such as the constancy of ccc and the relativity of simultaneity, leading to the proposal of new "generic" transformations (GTs) as replacements for Lorentz transformations. Furthermore, the paper would benefit from the inclusion of more updated references to strengthen its relevance and reliability. Integrating recent studies and findings related to the topic will demonstrate the author's awareness of current developments in the field and ensure that the paper remains up-to-date.

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These enhancements will contribute to the overall quality and impact of the paper, enhancing its value to the academic community and readers interested in the subject matter.

Strengths:

1. Despite being outdated due to Hubble's discovery of expansion, Einstein's static model remains a theoretical framework for understanding foundational concepts like spacetime curvature.
2. The introduction of GTs to reconcile the inconsistencies is an ambitious and thought-provoking extension to the discourse on SRT.

Suggestions for Improvement:

1. While theoretically rigorous, the lack of direct empirical validation weakens the claims.
2. The broader implications of GTs, particularly beyond spherically symmetric or static universes, remain speculative.