

Peer Review

Review of: "The Sagnac Effect and General Relativity Foundations"

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When the motion of an observer along a circular orbit is considered, the reference frame attached to the observer is inherently non-inertial. At present, there are no known transformation equations that relate two non-inertial frames or an inertial frame and a non-inertial one. The Sagnac effect is more clearly understood when the observer's motion is treated as linear, involving rectangular light-ray trajectories in the laboratory (inertial) frame. Based on such a formulation, it has been demonstrated (Bhadra *et al.*, *Eur. Phys. J. C* **82**, 649 (2022)) that the origin of the Sagnac effect lies neither in frame rotation affecting clock synchronization nor in the relative motion between the source and the observer; rather, it arises purely from the asymmetric position of the observer with respect to the light paths.

Declarations

Potential competing interests: No potential competing interests to declare.