Dear Editors of *Foundations of Physics*,

Please find enclosed our manuscript, **“Unimetry: A Phase-Space Reformulation of Special Relativity.”** The paper proposes a conceptual framework in which time and space emerge as derivatives of a single phase parameter, and standard relativistic effects (time dilation, Lorentz factor, velocity addition, Doppler shift) arise from ordinary rotations of a constant-magnitude flow in an internal plane. The Minkowski interval appears as a conserved quadratic form induced by projections of this flow; photons and massive particles correspond to limiting orientations within the same construction.

**Fit to journal.** The work addresses the conceptual foundations of special relativity and its geometric underpinnings—topics central to *Foundations of Physics*. We believe the paper contributes to ongoing discussions on the interplay between Euclidean rotation pictures and the observed hyperbolic structure of spacetime.

**Novelty and significance.** The framework:  
(1) re-expresses Lorentz kinematics via Euclidean rotations of a phase flow while reproducing standard SR relations;  
(2) treats massless and massive cases within a single orientation-based picture;  
(3) links the conserved interval to a simple geometric invariance;  
(4) clarifies connections to Lagrangian/Hamiltonian formalisms and suggests extensions to gauge phases and curved backgrounds.  
These points may interest readers working at the physics–mathematics–philosophy interface characteristic of the journal’s scope.

**Compliance and availability.** This manuscript is original, not under consideration elsewhere, and its author approves its submission. There are no human/animal subjects, datasets, or code beyond symbolic derivations; all formulae needed to verify results are contained in the text. We declare no competing interests and list funding information below (or “none”). Declarations are provided in the manuscript per Springer requirements (Competing Interests, Funding, Data/Code Availability, Ethics/Consent, Author Contributions).

We consent to Springer Nature’s **In Review** service to post our submission as a permanent preprint on Research Square under **CC-BY 4.0**, with a DOI, and with public tracking of peer-review status; all authors agree.

Thank you for your consideration.

Sincerely,

Timur Abizgeldin

Dipl.-Ing. Computer Science

MSc System Design

St.Veit an der Glan, Austria

[timurabizgeldin@gmail.com](mailto:timurabizgeldin@gmail.com)

Tel.: (+43)069010195024