

Jorge Bierrenbach

bierrenbach85@gmail.com

+55 (19) 99283-1060

Dear Editors of \*Foundations of Physics\*,

I respectfully submit for your consideration the manuscript entitled "Regenerative Gravity and Homeostatic Equilibrium (GRHE): A Unified Cosmological Framework," which proposes a novel mathematical structure to reinterpret gravitational and cosmological phenomena based on the concept of regenerative balance in space.

Despite being an independent researcher without formal academic affiliation, I have devoted years of dedicated study and testing to develop a theoretical model capable of describing, without recourse to singularities or dark components, the full range of known cosmic dynamics. The GRHE formula has been evaluated in scenarios from the behavior of subatomic particles to galactic interactions, including cosmological expansion, gravitational lensing, Mercury's perihelion, binary pulsars, the Pioneer anomaly, quantum effects, and thermodynamic behavior.

The formula central to the theory is functionally universal and has been applied rigorously in all possible scenarios - including anomalous accelerations, quantum fields, astrophysical observations, and thermodynamic interpretations. This breadth of application reinforces its consistency and offers a path toward conceptual unification of classical, quantum, and relativistic domains.

Additionally, I would like to emphasize that this theoretical work is officially registered with the National Library of Brazil, securing its authorship and originality.

I humbly submit this work with the intention of it being subjected to independent scrutiny by experts, given

that I lack access to institutional resources or laboratories. My objective is not personal recognition, but to contribute a new perspective that may support the work of professional physicists and researchers in addressing persistent theoretical challenges.

Thank you for considering this submission.

Sincerely,

Jorge Bierrenbach