

Review of: "On the Mass of (Gravitational) Potential Energy"

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Potential competing interests: No potential competing interests to declare.

The author discusses the transformation of potential energy in classical physics among the strong force, the weak force, and gravity, which is used as the prominent example. The research is novel for the transitions of concepts from classical mechanics to quantum physics within the elementary and classical frameworks. It is quite relevant to black hole physics in the detailed analytic frameworks.

While the gravitational constant was measured by classical physics, the subsequent mention of gamma rays implied the author's inference on the involvement of the strong force, which is experimentally possible to determine. The further deductions regarding the photon involvements in relativistic physics further imply the Lorentz Transformation in relativistic physic-chemistry.

Black holes are traditionally studied by their extremities in the phenomenon of gravity, while the author, through the research question that is historically relevant in the sociology of knowledge, has found his way to further clues from the photon-based inferences.

The author has not, however, specified the intricacy of mass in the study by the idealized thought experiments. While the object in the thought experiment is inside the other object of Earth, the friction forces are not negligible since it is not a two-system pair anymore for the retrospective examinations of Newtonian physics. Further research into Modified Newtonian dynamics (MOND) is suggested.