

Abstract Submitted
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Conservative Transformation Group: Solar System Dynamics EDWARD GREEN¹, University of North Georgia — Pandres has proposed a theory which extends the geometrical structure of a real four-dimensional space-time via an enlarged transformation group called the conservation group. Using a contraction of the curvature vector, a Lagrangian is defined and the resulting field equations are invariant under the conservation group. We use the free-field spherically symmetric solutions to explore the implications for solar system dynamics. These solutions are similar but not identical to those of standard General Relativity. Radial motion, the Pioneer anomaly, Kepler's third law, the precession of perihelia, gravitational lensing and the time-delay problems are discussed and compared to the standard results. Possible solutions for the Pioneer anomaly and the temperature of the halo are presented.

¹This is the second talk that I would like to present at SESAPS

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