Abstract Submitted
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Gravity and the Conservation Laws RAYMOND DAVIES[1], Retired — Gravity is arguably the Physical Phenomenon with which we are most familiar and yet it is one of the least understood. Gravitons or Gravity waves have not been detected and identified. Add the fact that gravity affects bodies according to their mass, regardless of their size or shape, raising doubts about the applicability of the Inverse Square Law, then there is good reason to look for some quite different explanation for that which holds the whole Universe in place while allowing considerable freedom of movement. The presentation will suggest that separated bodies can not apply a force on one another, but that, on the contrary, all bodies in a system move independently of one another maintaining their momentum, while adhering to a constant total separation between each pair of bodies that represents the total energy between them. An additional dimension (X) is needed for this to happen. With this dimension, all free-fall trajectories are circles that, in space, appear as circles, ellipses or even vertical lines. The hypothesis concludes that Newton's equation for acceleration does not apply to all Gravitational effects, such as the trajectory of a body dropped vertically from several thousand miles above the earth. Its acceleration, in contrast to that calculated using the Inverse Square Law, decreases as the body falls.

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