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Conservation, Non-conservation Laws and Gravitational Energy-momentum in General Relativity

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We show that because in a curved spacetime parallel transportations of (r,s)- tensors with r+s>0 depend on paths, one cannot add up (r,s)-tensors at different points to get a definite sum (r,s)-tensor when r+s>0. However, when restricted to an infinitesimal spacetime region, one still can add up (r,s)-tensors at different points to get a definite sum (r,s)-tensors, if neglecting higher order infinitesimals. Due to these sound facts from geometry, we cannot talk about the sum of (r,s)- tensors distributing on a finite or infinite hypersurface, nor the net increase of (r,s)-tensors in a finite or infinite spacetime region, if r+s>0; but we still can talk about the sum of (r,s)-tensors distributing on an infinitesimal hypersurface element, or the net increase of (r,s)-tensor in an infinitesimal spacetime region, when neglecting higher order infinitesimals. Therefore, denoting by ⊠ the flux density (r+1,s)- tensor field of (r,s)- tensor Q, the conservation law of Q in curved spacetime can only be “the covariant divergence of ⊠ vanishes everywhere”. It reads, “the net increase of tensor Q in any infinitesimal 4-dimensional neighborhood is zero”.
In particular, matter energy-momentum P is a (1,0)-tensor, denote its flux density field by T. The conservation law for P in GR cannot be anything else but “the covariant divergence of T vanishes everywhere”. It reads, the net increase of matter energy-momentum in any infinitesimal spacetime region is zero. This means matter fields and matter particles exchange energy-momentum with each other, but not with anything else including gravitational field.
Force, or interaction in physics, always means exchange of energy-momentum. Now that the gravitational field does not exchange energy-momentum with matter fields and matter particles. So, gravitational field does not carry energy- momentum, it is not a force field, and gravity is not a natural force.

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