Mass Increase with Strong and Gravitational Potentials, and Mass Defect with Electromagnetic Potential

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Abstract:

The proposal is “mass increases with the reduction in strong and gravitational potentials, while it decreases with the increase in the absolute value of Electromagnetic potential”. This proposal explains the big difference in mass between hadrons (protons, neutrons, & mesons) and their components (quarks), mass difference between nucleus and its individual components (protons and neutrons), massless of gamma photons, abnormal masses of mesons and bosons, and the excess in galaxy masses (dark matter).

Also, this proposal shows the exact relation between mass and energy:

Strong Potential=-3.04" " mc^2

|Electric Potential|=-〖5.57 × 10〗^(-3) mc^2

Gravitational Potential=-〖1.22 × 10〗^(-7) mc^2

Where m represents the excess in mass due to strong potential, or gravitational potential and represents the decrease in mass due to electromagnetic potential.

Released energy here equals potential energy and doesn’t equal decrease in mass using the formula E=mc2. Released energy is transferred to heat, photons, kinetic energy

Finally, proposal will try to describe the relation between photon energy and mass of its components using the general equation of kinetic energy:

Photon Energy=1/2" " mc^2

m is the sum of the individual masses of its components, while the total mass of photon is zero