

Abstract Submitted
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Unification of Einstein's Gravity with Quantum Chromodynamics JACK SARFATTI, ISEP — The four tetrad and six spin-connection Cartan 1-forms of Einstein's GeoMetroDynamic (GMD) field emerge from the eight virtual gluon macro-quantum coherent QCD post-inflation vacuum condensates that form in the inflationary phase transition. This joint emergence of gravity and the strong force is similar to the emergence of irrotational superflow with vortex defects in liquid helium below the Lambda Point. Repulsive dark energy is from the residual random virtual bosons that did not cohere in the moment of inflation. Similarly, attractive dark matter is from the residual random virtual fermion-antifermion pairs. Therefore, I predict that the LHC will not detect any on-mass-shell real particles that can explain $\Omega_{DM} \sim 0.23$. As first suggested by Abdus Salam (f-gravity) the low energy tail of the nuclear force can be explained as strong short-range Yukawa gravity. QCD's IR confinement and UV asymptotic freedom are elementary consequences in this simple model.

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