Study about the Unification of forces as a problem in Modern Cosmology: Inconsistency between General Relativity and Quantum Field Theory

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Notably, the Special and General Relativity proposed by Einstein bring us lots of information about reality, much more clearly than with the so-called Newtonian physics. Therefore, was added the Lagrangian, Hamiltonian and Jacobi formulation, whose generalized the classical field theory. With this set, by tensor algebra, can generalized movement and space-time without changes of reference or coordinates. Then it can be obtained a model that describes the Universe and the problems of Cosmology and Gravitation.
However, the theoretical models do not work so well when applied to the reality, because the universe is entirely quantum. Quantum electrodynamics could be proposed, by quantizing the electromagnetic field, and why with the gravity could not occur the same effect? Because some infinites and singularities can appear in the calculations, bringing difficulties to the quantization of the theory. In consequence, physicists and philosophers discuss about the inconsistency of the theory, adopting as like solver method the renormalization of the fields, which would be eliminated the infinites making them be absorbed by a new redefinition of physical parameters, i.e., would use a new infinite amount that can be proposed,"to cancel" the old one. Thus, the theory would be quantized without errors.
However, the problem would still persists, because it must use symmetry to quantize the gravity and, if the universe is expanding, the symmetry is lost. It can use a time range for analysis, in a static universe, but nothing could be concluded about the particles of this universe, because the reality is expanding!
In this work, was studied phenomenologically these concepts to understand why the gravitational force, so well described by General Relativity, couldnt be unified with other forces until now, and how there are alternative solutions where it can be renormalized and quantized, but still widely criticized by scientists, to be the "piece of the puzzle" that was missing for the so expected unification of the forces and the Theory of Everything!
On this way, it was verified the necessity to study the inconsistency of these theories and new ideas already proposed for the solution. The most contemplated is the String Theory. On the other hand, theres a new dilemma, because this theory would be the solution of the problem, but that would implies a new other start, and not more for this whose a solution we were looking for.
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