Abstract

According to Einstein field equation distribution of matter determines the geometric properties of spacetime. On the other hand, one can read Einstein's equation in the opposite direction, and expect creation of matter by geometry. One of the Einstein's dreams was to build a gravitational theory in which the concept of matter is rejected in favour of pure fields. A gravitational theory in which the matter is absorbed into the field itself, so that one has a set of homogeneous partial differential equations according to Einstein is called unified field theory. In this kind of theories it is well known that the Mach's principle (As a effects of global world in the local) and quantum effects must be satisfied.