The gravitational paradox Mende

It is considered that the universe is evenly filled with stars. Let us assume that the mass of stars on the mean proportional to their size. B by the infinite universe, whose all space is filled with stars, any line of sight must finish on the star. Gravitational force, created by star at the observation point, decreases inversely proportional to the square of distance to it. But angular area (solid angle), occupied before the sky by each star, also decreases inversely proportional to the square of distance. Hence it follows that the force of gravity (equal to the ratio of gravitational force to the solid angle, occupied before the sky by star) it is inversely proportional to the solid angle, at which is visible the star. When we observe some point of sky, we see the star, which creates at the observation point gravitational force, proportional to its angular dimensions, but since at any point of the firmament must be located any star, and such stars before the sky infinite set, gravitational force, created by these stars at the observation point must be infinite. But object, which is located in the observation point does not feel this force for that reason, that it is identical in all directions and its components mutually compensate each other.

The special feature of the phenomenon examined consists in the fact that the gravitational potential at all points of the universe, although it is equal to infinity, remains constant. Therefore its gradient, which determines the force of gravitational interaction, it remains equal to zero. Is not excluded the possibility of the fact that precisely this mechanism requires the presence of the identical density of material at all points of the universe, since. any local deviations from this density it will contradict the requirement of the equality of gravitational potential at all its points.