the general science journal

# Gravity, Particles and Star Formation

Israel Sadovnik
Israelsad@bezequint.net

It is now considered that the "cold" model of the universe does not correspond to reality. I have another point of view.

We suppose that gravity particles:

a) Theoretically predicted but never observed (a hypothetical particle) with no electric charge and no mass is supposed to be responsible for the gravitational interaction between matter and energy.

b) A hypothetical elementary particle is responsible for the effects of gravity (the quantum of gravitation).

This means that the initial gravitational mass of stars and planets is created from gravity particles.

Nobody knows what geometrical and physical parameters are possessed by these gravity particles. Einstein's GRT doesn't explain which particles create a gravitation field. I will try to explain it.

From where did the first material gravity particle appear? Now it is considered as the reference frame which is connected with relic isotropic radiation. T = 2,7K is absolute. But T = 2,7K is not a constant factor. This relic isotropic radiation continues to increase and its temperature will decrease. Hence, approximately over a period of 20 billions years it will reach T=0K. Therefore the gravitation particle can appear from nothing, from the vacuum, from absolute zero:

Let us take some area of the vacuum at T = 0K and mark it with the letter R. The number of particles in this area we will designate with the letter N. Then every particle of this area has gravity/rest mass: R/N = k.

Can they have volume? No. Because according to J. Charles law (1787), when the temperature falls 1 degree the volume decreases by 1/273. When the temperature reaches -273 degrees, the volume disappears. The physicists say that if the particle has completely lost its volume the physical parameters of particles become infinite. But such a statement contradicts the law of conservation and transformation of energy. And then we must understand that the sense of the law of conservation and transformation energy is. We should understand and accept that when the volume of the particles disappears, they become indefinitely flat figures. What does this mean? It means that we cannot reach the absolute vacuum and T = 0K, and we also cannot reach the density of the particle in T=0K.

Charles law was confirmed by other physicists: Gay-Lussac ( 1802), W. Nernst ( 1910), A. Einstein (1925) .

These " flat figures " have the geometrical form of a circle, as of all flat figures the circle has the most optimal form: C/D= pi = 3,14. These R/N= k particles are the initial gravity particles.

What is the common condition of gravity? Let us suppose that in some local sphere of the vacuum, the quantity of the passive particles (k) that is equal to Avogadro's number N was found. Then according to Boltzmann's principle, the gathering of the particles in some local sphere of the vacuum has a probable basis, S= klnW. This is the common condition of gravity.

How did the first material particles appear from these gravity particles (k?). The first material particles were helium, because it exists very, very near absolute zero, T = 0K.

Nobody knows what helium is! Why? Because the behavior of helium is absolutely different from all another elements in Nature! I will try to explain how helium was created from R/N = k. Helium exist very near absolute zero: T = 0K. Therefore we must take into consideration the processes of superfluids and superconductors which require extremely low temperatures, approximately 0K. Then, the first particles which were created from R/N =k could be helium II (He II), which are created at temperature, 2.7K.

The second particles which were created from helium II ( He II ), could be helium I ( He I ), which are created at temperature 4.2K. - Kapitza / Landau theory.

Then all systems come to rotary movement. But helium rotates differently from all other liquids. If one rotates helium very strongly, it starts to behave not as liquid, but as an elastic body (experiment of E.L. Àndronikashvili, Georgia. ).

Separate layers of helium become elastic ropes that change the picture of quiet uniform rotation completely. In such rotations, sharp friction originates between different layers of the liquid. Slices of substance of various sizes come off. Further they break into particles that have the names, Helium-three (3He) and Helium-four (4He).

The common thermal temperature in liquid increases. Rotation and collision of the particles (3He) and (4He) at some stage leads to their further reduction to small particles with the name of the nucleus of hydrogen atoms, the proton (p). Protons are initial, the smallest, material particles. The most widespread elements in stars are helium and hydrogen. Our sun consists of helium to 30% and of hydrogen to 69%. Ii was found that the external layers of our sun represent 1kg of hydrogen to 270g of helium. In deeper layers this changes to 1kg of hydrogen to 590g of helium. Thus there is more helium in the deeper layers of the sun and in the central area, helium-II, helium-I are found. The reaction between (k), helium and hydrogen go on basically ion the Sun. All the elements of material substance are created from the initial particles, (k) and helium.

How does the entire system come to rotary movement? If gravity particles fly to different sides, they can not create the initial gravitational mass of planets and stars. It means, that an unknown power collects the gravity particles together and gives them the movement in one direction. As a result of this common movement of all gravity particles (k), the initial gravitational mass of planets and stars is created. What power can gather all particles together?

Classic physics asserts, that in a Vacuum T= 0K the motion of particles stops, and the energy of Vacuum is zero. Quantum physics asserts, that in a Vacuum T = 0K there is still motion of particles, and the energy of the vacuum is not zero. Therefore, let us take some energy in an area of the vacuum and mark it with letter, E. The mass of this energy area we will mark with the letter M. Then every particle in this area has the energy/mass of rest: E/M = c^2, ( E = Mc^2, M = E/c^2.)

As this particle is at rest, its impulse is equal to zero (h=0). But this particle can change its state of rest. If the particle has the impulse of Goudsmit-hlenbeck's h = h/2pi, its energy will be: E = hw. The thermal balance of the vacuum will be disturbed. The actively rotating particle with energy E = hw perturbs the movement of the surrounding passive particles, R/N=k and a gravitational field begins. And the source of the gravitational field is an active electron, E = hw. The remaining particles R/N = k are passive participants (victims) of the creating gravitation field.

The stars are formed by the scheme: $e^-$ --k --He II-- He I --rotating He--thermonuclear reaction – p…
The Second law of thermodynamics doesn't forbid this process.