A New, Simple, and Clear Explanation for the Existence of the New Particle 'Cidtonium' Based on the Density of Black Holes and the Big Bang in the Universe

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To understand the nature of celestial objects, we can refer to objects like natural satellites, planets, stars, black holes, and galaxies. As we know, each of these objects has a specific density. The simple equation for calculating this is:

$$\rho = {}^{m}/_{V}$$

Using this equation, you can find the density of any celestial object. For example:

$$\rho_{earth} = 5500 \ {}^{Kg}/_{m^3}$$

$$\rho_{sun} = 1400 \ {}^{Kg}/_{m^3}$$

$$\rho_{\text{white dwarf}} = 10^{9} \ to \ 10^{10} \ {}^{Kg}/_{m^3}$$

$$\rho_{magnetar} = 10^{17} \ to \ 10^{18} \ {}^{Kg}/_{m^3}$$

$$\rho_{black\ hole} = 10^{20} \ to \ 10^{32} \ {}^{Kg}/_{m^3}$$

$$\rho_{big\ bang} = 10^{41} \ {}^{Kg}/_{m^3}$$

The largest proportion of a star's volume is made up of hydrogen, which is being converted into helium and other heavier elements. A white dwarf is said to have the density of 10^9 to 10^{10} ${}^{Kg}/_{m^3}$. In this view, a white dwarf is a small sphere whose constituent matter is just protons.

If we consider the density of a black hole, we can no longer clearly say that its constituent matter is like a single element, or even a proton or a neutron. This is because a black hole's density is a number far greater than that of a proton.

This suggests that to achieve the density of a white dwarf, the atomic structure must be broken down, and the entire sphere must be made up of protons. The atomic structure has been broken, and the protons have come together to create this high density. But if we want to define a material or substance for densities higher than this, above 10^{20} ${}^{Kg}/_{m^3}$, like material near the big bang moment, a "sub-atom" or "sub-photon" would need to be defined. In such a state, the proton and "photon" structure would have to be broken down, with the particles dividing into

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smaller ones to achieve a greater density.

Conclusion:

To achieve an object with a high density, like we had at near of big bang moment, you can no longer consider an atomic structure to be the basis for it, as seen in white dwarfs and magnetars. If we want to have a density above 10^{20} $^{Kg}/_{m^3}$, the particles that make up a proton, photons, would have to be broken down into even finer particles. Actually, the photon's structure would have to break down into even smaller particles that are packed together to achieve this incredibly high density.

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