Planck Spherical Units (PSU) – *The Technical 10% You Need to Know.* Ver 1.0

Source: "*Cosmometry – Exploring the HoloFractal Nature of the Cosmos"* by Marshall Lefferts (p = page #s)
Source: Resonance Science Foundation's Delegate Course by Nassim Haramein (NH) (x.y.z = course section #)

By the late 1800s, it was well known that the temperature of an object was somehow connected to how brightly it would glow or radiate light, as well as what color it would radiate, however it was not known as to why certain temperatures radiated certain colors. Further discoveries showed that at a given temperature the intensity of radiated energy is proportional to the frequency. However, while their calculations matched experimental results at low frequencies, for higher frequencies (ultraviolet and above) the predicted intensity of radiated energy increased to infinity. This became known as the "ultraviolet catastrophe." In 1894, Max Planck was working for a consortium of electric companies attempting to produce a better light bulb. This required the UV catastrophe be addressed. Through rote trial and error he eventually worked out a mathematical expression that fit the experimental data. NH 3.5.2

According to Quantum Electrodynamics (the relativistic model of Quantum Mechanics) even a small area of the vacuum has an infinite amount of energy. In order to eliminate the infinities from the mathematics a renormalization was agreed to where the Planck wavelength was established as the cutoff value. This wavelength was used since it is the smallest oscillation of the electromagnetic field. Using the Planck distance of 1.616×10^{-33} cm (note that the Phi Ratio is 1.618) the physics community renormalized the vacuum by taking a cm^3 of space and calculating how many Planck volumes (Planck length cubed) could fit into it. Each Planck has a mass of 10^{-5} grams and when they added it all up the fundamental density of the vacuum came out to be 10^{93} grams/cm^3 – an enormous number. To give you an idea how dense this is, if we compacted all the stars in all the galaxies in the universe into one cubic cm, the resulting density would be 10^{55} grams/cm^3. That's 38 orders of magnitude smaller than the density of space. NH 3.5.7

The Planck distance is deemed to be the smallest relevant unit of measurement in physics. In simple terms, you can think of it as the distance a photon moves at the speed of light in one Planck second. Generally considered the smallest conceivable wavelength in the universe, Haramein has calculated sub-plank values using his Holographic Mass solution, which supports the concept that the Planck Units are a fundamental boundary condition in physics.

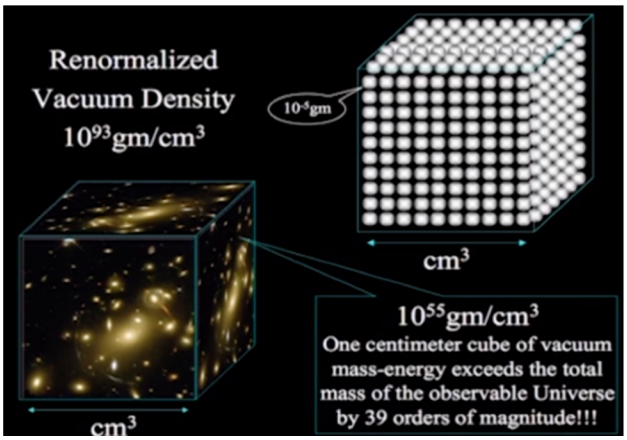
The origin of mass is directly out of the vacuum fluctuation of space. From the dynamic of space itself emerged energy and mass. NH 4.3.6

The vacuum density is the source of all reality. NH 3.5.7

The Vacuum's totally empty space is actually a seething turmoil of creation and annihilation, which to the ordinary world appears calm because the scale of fluctuations in the vacuum is tiny and the fluctuations tend to cancel each other out. NH 4.2.2

Gravity is, in fact, an effect of the Planck field co-moving at the cosmological scale, defining the mass of an object and the gravitational "tensegrity" between objects, which are all centered by a singularity. p71

The so-called vacuum of space is actually filled with a Planck-scale matrix of electromagnetic (EM) energy fluctuations in balanced equilibrium — the PSU-IVM, which more appropriately ought to be called the plenum. p98



To help you comprehend how a cubic cm of "empty" space can be more energy dense than cramming all the mass of the universe into the same volume, consider these items;

1. Humans evaluate everything based on our five senses. This is incredibly limiting. Science has given us tools to extend our measurement capabilities but this can only go so far. All of our measurement systems are based on light. The PSU diameter corresponds to the Planck Length, which is the distance a photon takes to travel across itself and is the smallest defined unit of measurement. In order to measure an actual Planck length we would need a device with a smaller wavelength than the Planck Length. This is impossible (at least in this universe).
2. We've been told since childhood about the Big Bang when supposedly all matter that ever will be was created from nothing. Does this make any sense? Maybe the "nothing" was actually "something" and we just didn't understand it. Haramein mathematically hypothesizes that the beginning of the universe can be derived from a proton escaping from another universe, thus releasing its extremely dense internal holographic mass-energy in a rapid expansion that correlates to the concept of the Big Bang theory.

Why is over 96% of the total mass of the universe missing from our theories?

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