

The Black Hole

Theory:

Black holes at the center of galaxies is the place where all the atoms of the celestial material of that galaxy ends up, undergo a **β -decay** process and are converted into a Neutron, Graviton and Neutrino. The reverse of this process is also the production of hydrogen in outer space, as verified in the paper "Entropy Renewing Recycling Universe" (N. Saryal, JETC13th Europ Thermody. Conf Nancy)

Dark Matter

Theory:

Dark Matter is made-up of Gravitons that fill the Universe to 99% and. They are the transmitter of electromagnetic vibrations (light and all other electromagnetic waves).

Structure of an Atom

Theory:

A single atom (Hydrogen) consist of a Neutron, inside of it a Graviton (making up a Proton) and a Neutrino (Electron). The Neutrino vibrates at one of the quantized frequencies of the atom and together with its amplitude, makes up the atoms energy level. If energy level increases/decreases, the amplitude increases/decreases until the next higher/lower frequency level is reached. As this sudden frequency change f takes place, a "photon" is released.

Proof:

Beta Decay:

http://en.wikipedia.org/wiki/Beta_decay

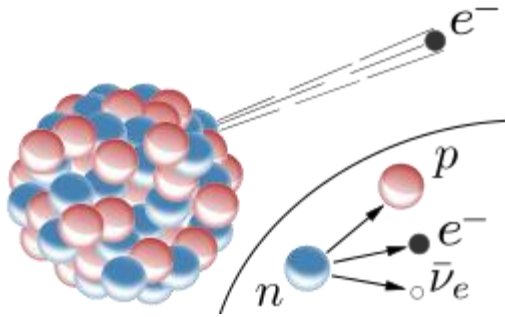
In nuclear physics, **beta decay** (β decay) is a type of **radioactive decay** in which a **proton** is transformed into a **neutron**, **or vice versa**, inside an **atomic nucleus**.

Dark Matter:

<http://csep10.phys.utk.edu/astr162/lect/cosmology/darkmatter.html>

There are many reasons to believe that the universe is full of "**dark matter**", matter that influences the evolution of the universe **gravitationally**, but is not seen directly in our present observations.

If **inflation** is correct the density of the Universe should be exactly the closure density. Luminous stars and galaxies contribute only about 0.5% of the closure density, so **99% of the Universe is in the form of dark matter**. We may speculate on what particles could make up this dark matter.



Beta decay. A beta particle (in this case a negative electron) is shown being emitted by a nucleus. An antineutrino (not shown) is always emitted along with an electron. Insert: in the decay of free neutron, a proton, an electron (negative beta ray), and an electron antineutrino are produced

Electron antineutrino

Like all particles, the electron **neutrino** has a corresponding **antiparticle**, the electron **antineutrino** ($\bar{\nu}_e$), which differs only in that some of its properties have **equal magnitude but opposite sign**. The process of **beta decay** produces both **beta particles** and electron antineutrinos. **Wolfgang Pauli** proposed the existence of these particles, in 1930, to ensure that beta decay conserved energy (the electrons in beta decay have a **continuum of energies** and **momentum** (the momentum of the electron and recoil nucleus – in beta decay – do not add up to zero)).

What's a Neutrino?

www.ps.uci.edu/~superk/neutrino.html

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Neutrinos are similar to the more familiar **electron**, with one crucial difference: **neutrinos** do not carry electric charge. Because **neutrinos** are electrically neutral,

Neutrino	ν_e	ν_μ	ν_τ
Charged Partner	electron (e)	muon (μ)	tau (τ)