Hawking Radiation -Addition to theory - Seeing within the electron-positron & proton-antiproton event horizons

ABSTRACT

__Hawking Radiation -Addition to theory__

http://education.jlab.org/qa/electron_01.html
Electrons in atoms move at 1% of the speed of light.
Electrons are in the "e.m. energy wave state" [moving at c.] 1% of the time.
Electrons are in the "mass state" 99% of the time.
in everyday language:-
(a) [SOMETIMES squashed at the poles & SOMETIMES stretched at the poles]{mutually exclusive, sequential actions of the 2 properties} NOT
(b) [ALWAYS black & ALWAYS a ball] {no interaction of the 2 properties}
i. e. an electron's "e.m. energy wave state" & "mass state" properties are SEQUENTIAL.
The "Schrodinger's cat, thought experiment where the cat is alive OR dead, but the experimenter does not know until the experimenter "observes" the cat, DOES APPLY!
The "Schrodinger's cat, thought experiment where the cat is alive AND dead DOES NOT APPLY!
The "e.m. energy wave state" can easily escape at a shallow angle from between the electron - positron event horizon & the e. m. radiation event horizon.
As well as the "standard Hawking radiation", there would also be "sub-electron-positron event horizon, Hawking radiation", from the [1%] electrons in the "e.m. energy wave state", from the region between the electron-positron event horizon & the e.m. event horizon. The "e.m. energy wave" would normally "escape" this region before flipping back to the "mass state". Electrons, positrons, protons & antiprotons will be accelerated towards the black hole, at high speeds by the very high gravity forces, before they flip to the "e.m. energy wave state" and then "escape" / are "emitted" from the black hole.

__DETAILS__

http://education.jlab.org/qa/electron_01.html

How fast are the electrons whizzing around in the atoms around you? A good example (and the most simple to calculate) is the hydrogen atom, which is in all our water. A calculation shows that the electron is traveling at about 2,200 kilometers per second. That's less than 1% of the speed of light.
For an electron's duality / dichotomy [e. m. energy wavelength /mass], the electron could be viewed as like:-
(a) [ALWAYS black & ALWAYS a ball] {no interaction of the 2 properties} OR
(b) [SOMETIMES squashed at the poles & SOMETIMES stretched at the poles]{mutually exclusive, sequential actions of the 2 properties}
If an electron is ALWAYS moving at e. m. energy velocity it will always be moving at c! If an electron is moving at 1% of the speed of light it is spending "about" 1% of its time at the speed of light (e. m. energy velocity) & "about" 99% of its time at the "speed of mass" ("insignificant in comparison").
This would mean that option
(b) [SOMETIMES squashed at the poles & SOMETIMES stretched at the poles]
APPLIES! -
i. e. an electron's "e.m. energy wave state" & "mass state" properties are SEQUENTIAL not SIMULTANEOUS! It would also mean that the electron is spontaneously flipping between the "e.m. energy wave state" & "mass state", spending most of its time in the "mass state".

In the quantum realm, the electron's position in space can be described by a probability distribution diagram.
The electron's change between the two properties, position in time will also be described by a probability distribution diagram. [There would be two changes per "cycle".]
[This would mean that, at any given moment, 1% of the electrons in a person's body are massless energy!]

http://www.madsci.org/posts/archives/2000-11/974298400.Ph.r.html

At very low temperatures, the protons in a hydrogen molecule [deuterium] revolve around each other 7 X 10^12 times per second, which correspond to a speed of 2000 meters per second. Much slower than the electrons around the nucleus of an atom.
 That's about 1/100000 of the speed of light.
If a proton is ALWAYS moving at e. m. energy velocity it will always be moving at c! If a proton is moving at 1/100000 of the speed of light it is spending "about" 1/100000 of its time at the speed of light (e. m. energy velocity) &"about" 99999/100000 of its time at the "speed of mass" ("insignificant in comparison").
[This would mean that, at any given moment, 1/100000 of the protons in a person's body are massless energy!]
If a proton's e. m. energy wavelength & mass properties are SEQUENTIAL not SIMULTANEOUS. It would also mean that the proton is spontaneously flipping between the "e.m. energy wave state" & "mass states", spending most of its time in the "mass state".
This would also mean that:-
 the "Schrodinger's cat, thought experiment where the cat is alive AND dead DOES NOT APPLY!
the "Schrodinger's cat, thought experiment where the cat is alive OR dead, but the experimenter does not know until the experimenter "observes" the cat, DOES APPLY!

If "Star Trek's" "Enterprise" gets too near a large black hole, and its maximum acceleration is just a shade less than the acceleration pull of the black hole, at that point, it will "get sucked in"!
If a proton gets too near a large black hole, and its acceleration (well, velocity as a proxy) is just a shade less than the acceleration pull of the black hole, at that point, it will "get sucked in"!
If a electon gets too near a large black hole, and its acceleration (well, velocity as a proxy) is just a shade less than the acceleration pull of the black hole, at that point, it will "get sucked in"!
If a photon gets too near a large black hole, and its acceleration (well, velocity as a proxy) is just a shade less than the acceleration pull of the black hole, at that point, it will "get sucked in"!
The "event horizons" for the different events are at different distances from the "centre of the black hole". The relative positions of these event horizons, on going towards the centre, would be:-
[1] "Enterprise"
[2] proton - antiproton
[3] electron - positron
[4] e.m. radiation

Hawking radiation comes from the electron - positron event horizon. "Virtual particles" of pairs of an electron & positron are spontaneously created & then mutually annihilate each other, "almost instantly", throughout space. Near the electron - positron event horizon, one of the pair, say the positron, can be "captured" by the black hole, with the other one "escaping". On the simplest level, this would appear like the black hole was "emitting an electron" (or positron).

As the above explains, an electron flips between its "e.m. energy wave state" & its "mass state". This means that an electron (or positron) can be "captured" by the black hole, but then, from within the electron - positron event horizon, it may flip back to to its "energy wave state" with velocity of c. The energy wave can then easily escape at a shallow angle from between the electron - positron event horizon & the e. m. radiation event horizon.

The electron - positron event horizon will act as a filter absorbing all the "mass state" ("phase") electrons.

The extreme gravity would increase the wavelength of the radiation from half of that of electron - positron annihilation radiation. (It would be half because it only involves the energy of one particle.) The flipping frequency [during the "mass phase"] would change, because of the time dilation caused by extreme gravity.

The same reasoning would apply for the proton - antiproton event horizon. With the protons spending 1/100000 of its time in the proton "energy wave state".

When observing the sun, the centre of the disc appears the "hottest". This is because that is the most direct view looking down into the hottest volume. Looking more towards the edge is looking at the cooler surface layers.

The highest energy electrons will be those that come in almost tangentially, with a brief dip below the horizon, when it flips to the "energy wave state" & then emerges before it changes back to the "mass state".

The highest energy cosmic rays may be the same effect happening to protons.

When observing a black hole, the edge of the disc appears the "hottest". This is because the electrons (or other masses), coming in at a shallow angle, have a longer acceleration time, to get to a higher velocity. Higher velocity = higher energy = higher "temperature". The higher velocity converts to higher kinetic energy being added to the electron mass energy & this can be flipped to an increased "energy wave state", which "escapes" from within the proton - antiproton event horizon. Looking more towards the centre is looking at the "cooler parts", where ALL the mass & radiation is absorbed, with none being emitted for observing.

As well as the "standard Hawking radiation", there would also be "sub-electron-positron event horizon, Hawking radiation", from the [1%] electrons in the "e.m. energy wave state".