Dark Matter Halo "Swiss Cheese", "White Tears",
Dark Matter Properties and Space-Time Bubbles

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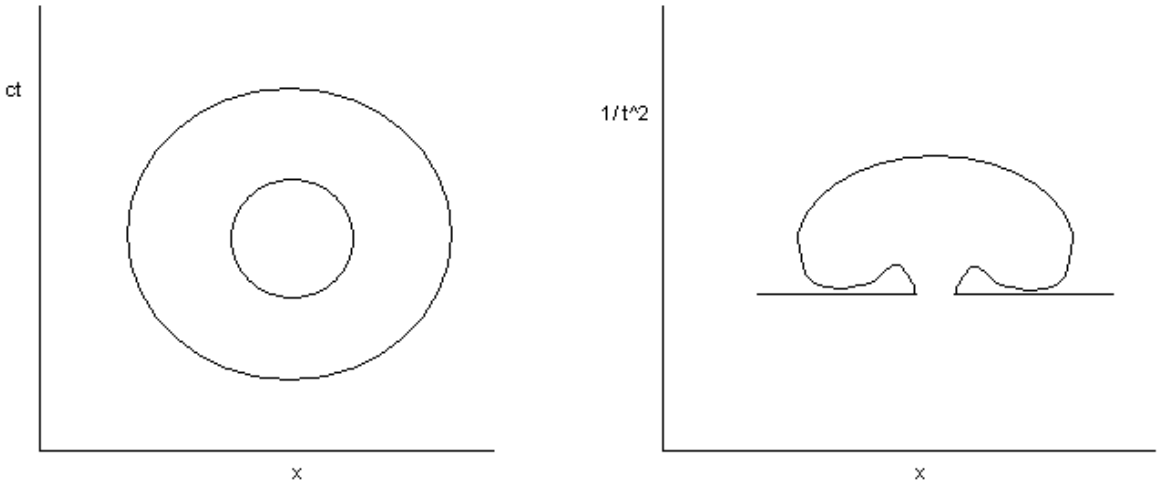
Although supersymmetric theories are being ruled out as of 2017, requiring heavier particles, dark matter is thought to be electrically neutral, gravitationally interacting matter, symmetric to normally gravitationally interacting matter. In positive/negative electrostatic forces, opposites attract, and in symmetry with gravity, there is one of two possibilities: either 1.) opposites repel, and the same attract (so positive attracts positive, and negative attracts negative), or 2.) gravity attracts all (negative and positive), and negative gravity repels all (negative and positive). Number two seems more likely, as otherwise negative gravity would have formed clumps instead of halos in the dark matter sector.

The characteristic composition of negative / anti-gravity is that it forms a "Swiss cheese" with clumps of ordinary matter. This is the shape that "white holes" might form: rips or tears that spill out, as opposed to concentrated centers. Another property is that it would float up in the presence of gravity, and could be distilled this way if it could be held with electrostatic repulsion. If squeezed into a confined space by electrostatic repulsion, it should concentrate more in the outer periphery, as opposed to the centric concentration of ordinary matter.

If we take the gravitational curvature of spacetime to be a 5-dimensional curvature of acceleration (that is, 3 spatial scalars with 2 temporal, to represent meters/second/second acceleration in any direction), it is as though a flat, spatial paper bulges out in a third, "height" dimension. According to the Minkowski diagram and spacetime interval equation we can measure the temporal dimension in meters as "ct" (lightspeed times time).



If concentrated enough, might the fabric or field of gravity not form a mushroom outgrowth that interacts at different points of touching? If the curvature of spacetime is taken to be acceleration, or

meters/second/second, a concentrated amount of dark matter confined by ordinary matter might create exactly a “mushroom”-shaped outgrowth. Reconciling this with meters, a spacetime interval can be measured in different directions of a set of axes, and a 5-dimensional (if we take into account time dilation or “patiency”) surface is created, with a possible “flat” 3-space-dimensional creating a bulge and outgrowth in 5-dimensional spacetime equivalent to a 5-sphere, meaning a 3- or 4-surface area analog of a 2-dimensional sheet creating a bulge in a 3rd dimension.

Although not exactly surface area, the curvature, rather than the paper analogy “height” dimension, might be more proportional as the surface areas of area elements or “points”, where convex points indicate positive, repulsive curvature, and negative, concave points, indicate attractive gravity wells. If gravity acts in a field, like being stretchy surface, matter being “on top” of the fabric causing a downward, attractive bend, the field's outgrowth coming in contact with itself, would cause matter coming across to travel over the fold, “on top of” the fabric. In this way, an Alcubierre-like bubble of spacetime could allow faster-than-light travel. The inner enclosure will “peek” out and any inbound matter will come in contact with the inner surface before the outer.

Even though a supersymmetric dark matter is thought to be unlikely, permutative anti-gravity symmetry would seem to indicate these properties, as expected of a chargeless, gravitationally-interacting particle.