

The Big Bang is garbage.

It violates all the most important physical principles:

gravity,
conservation of mass and energy,
cause and effect.

Why? It's inside out.

Learn how universes are really created.

If you are:

A scientist, an astronomer, a cosmologist, or a particle physicist,
Go to the chapter on "The Implosion Theory of Universe Creation."

If you are:

A layman wanting to know where our universe came from,
Start at the chapter on "Old Astronomy."

If you are:

A psychologist wondering how the subconscious influences science,
Be sure to read the chapter on "Mythology and Creation."

If you are:

A sociologist wondering how the public decides truth,
Read the chapter about "Truth."

ISBN 9781625505323

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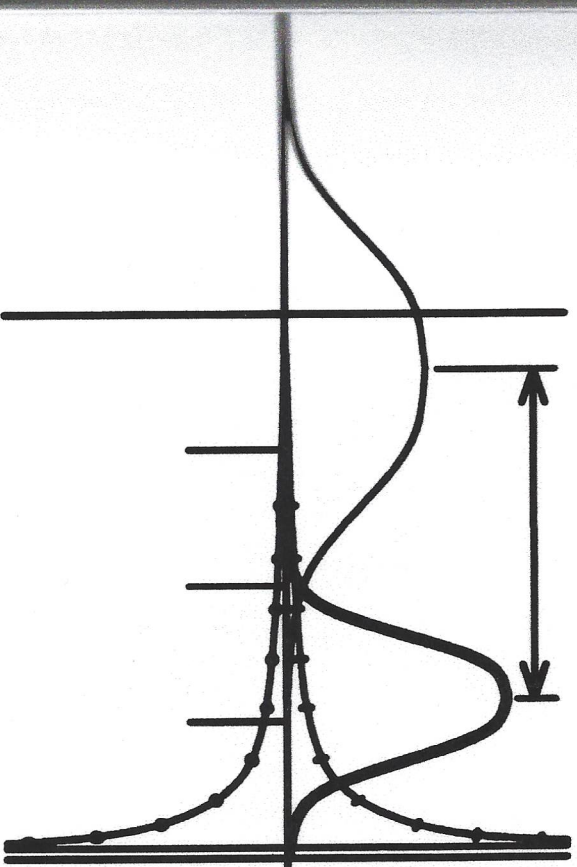
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The Implosion Theory of Universe Creation

Blue Star

The Implosion Theory of Universe Creation

Khun Dee's Story



by

Blue Star

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Steps toward thermodynamic/gravitational initiation

As a universe matures, the movement of mass goes in two directions: toward aggregation and toward dispersion. These translate into gravity and thermodynamics, the two great opposites.

To make thermodynamics work, space beyond gravity must be present. With gravity's constant force, space creation must also be a constant process.

In view of the described shrinking at high speed with the appearance of increased space between, gravity, the great attractor, is also the great space creator. If gravity is, as general relativity proposes, just a field in space, expansion and contraction are just the plus and the minus of the same thing. For the concentration of mass suitable to make the environment we know, both directions have no future unless there is a way to initialize or restart them at their primordial, more mixed arrangement.

The Implosion Theory of universe creation process is that initializer. Of course, there are provisional arrangements such as slower development (e.g. small stars), explosions and orbiting to stop falling. But current theory, except for the discredited Big Bang/Big Crunch cycle, has no place for any long term thermodynamic/gravitational reset.

Considering the character of the flow between gravity and thermodynamic tendency, nature seems to favor stepwise energy changes. Each of these steps is separated from the next by some conditional barrier and, often, a catalyst-like agent needed to make the change

to the next step. In animals, for example, metabolic energy release from otherwise stable molecules is made in a stepwise fashion and is made possible by enzymes, catalyst-like agents. In stars, there are also stable steps separated by change periods that only occur under special circumstances.

For example, when gravity forces particles together in a star-like situation, molecules disintegrate. Then the atoms ionize and the electrons separate from any specific nuclei. With greater heat and pressure the nuclei want to fuse and make heavier element nuclei. With even more heat and pressure this process may reverse and the heavy nuclei start to break apart and the smallest nuclei, protons, may be forced to join with electrons to make neutrons. These steps or stable entities, each a provisional gravity/thermodynamics balance, is temporarily maintained by gravity stopping the hot particles from leaving the system and kinetic resistance stopping the fall toward the center of gravity.

Remembering the subject of particle speed as it affects the creation of a black hole, I would suggest that the catalyst for this evolution to an initialized descendent universe (black hole) is speed. Things that block the speed increase also stop the transition to the next step - the black hole. Things or situations that allow or promote the increase in speed act as catalysts for the change to this next step. If the particles can reach a speed high enough, the particles can shrink thus allowing pressure to drop and the particles to fall forever. The accelerative force and speed may have to be great and sudden if the particles are going to reach the next step without stalling in some dense configuration. But what situation can produce this catalytic speed?

Pressure, alone, may not be sufficient. In fact, very large pressure may crush the particles into an aggregation that forms an obstruction to the attainment of the necessary speed by creating a resistance to falling that cannot be overcome. Because white dwarfs are too light and neutron stars are too compact and stable, they may be dead ends to the production of black holes (descendant universes).

The supernova

Background

A supernova may produce the catalytic speed needed for descendant universe (black hole) production. But, first, some background into the supernova process may be instructive.

Supernovas only occur in stars bigger than the Sun, an average size star. The smallest stars to supernova may be as little as 8 to 11 solar masses. The largest, up to 250 solar masses, are the biggest stars in the Universe. Supernovas are very bright, may sometime outshine their whole galaxy, can be seen from great distances and have become an important tool for calibrating the Hubble constant.

Types of supernovas

Below is a list of the Types of supernovae. It can be seen that the classification is based entirely on the light spectrum.

Type I (Spectrum shows no hydrogen)

Type Ia

Spectrum shows a single ionized silicon (Si II) line at 615.0 nm (nanometers), near peak light (Type Ia is a "thermal runaway" type - all other Types are "core collapse" types)

Type Ib/c

Spectrum shows a weak or is missing the silicon absorption feature

Type Ib

Spectrum shows non-ionized helium

Type Ic

Spectrum shows weak or is missing helium

Type II (Spectrum shows hydrogen)

Type IIp/II/n

Type II spectrum throughout

Type IIp/I

Spectrum shows narrow hydrogen lines are missing

Type IIp

Spectrum shows a "plateau" in its light curve

Type III

Spectrum shows a "linear" decrease in its light curve
(linear in magnitude versus time)

Type IIa

Spectrum shows some narrow hydrogen lines

Type IIb

Spectrum changes to become like Type IIa

The current interpretation is that all supernovas (except Type Ia) originate within the core of the star and send outward a shockwave that detonates outer core layers and blows away the outer part of the star. Thus, the study of supernovas is the study of the cores of giant stars. Of course, the only real connection we have with these super explosions is their light and the spectra they give off during, and occasionally before, the explosion. Computers coded to process existing data concerning nuclear collision characteristics at various heats and

pressures simulate what might be happening deep inside the star cores. The computer wizards producing these simulations of burning supernovas include, to mention a few, Stanford Woosley of the University of California at Santa Cruz, the Lawrence Livermore National Laboratory team led by Thomas A. Weaver and W. David Arnett of the University of Chicago.

As large stars heat up (to 10 million K degrees), they start to fuse hydrogen nuclei together to form helium which collects as a layer toward the inside of the star. As the abundance of helium increases and as heat increases (to about 100 million K degrees), the helium nuclei fuse to form a carbon and oxygen layer that accumulates to the inside of the helium layer. When there is enough carbon, oxygen and heat (500 million K degrees), they fuse to make a layer of silicon nuclei, actually a "silicon group" of elements about the weight of silicon. Being heavier, this is deposited to the inside of the carbon layer. In the same way, silicon nuclei fuse (about 5000 million degrees) to form the "iron group" layer, ultimately mostly iron because it is the last step that can possibly give off energy on fusing. The later reactions occur faster and, thus, give off more energy per unit time and are the hotter stages. Still, at about this same temperature the nuclear statistical equilibrium is reached and breakdown energy absorption ultimately balances the fusion energy release. Further heating must result from pressure increase. The remaining iron at the center of the star's core is dead ash. With all these layers, the comparison to an onion is commonly used.

Core collapse

The theory, supported by the computer simulations, has the iron core continuing to grow until it reaches the Chandrasekhar limit, the largest mass that can be supported by electron repulsion (i.e. a degenerate gas configuration). Some models, originally developed by Peter Goldreich and Steven Weber of Caltech and Amos Yahil and James M. Lattimer of the State University of New York at Stony Brook, imply a "homogenous core" where the iron core (at that point possibly 10,000 km in diameter) acts as one unit. Apparently, this is a quantum mechanics outcome of the wide scale filling of all available electron shells. Unable to support more weight, the core's electrons are absorbed into the protons of the iron nuclei and the core collapses suddenly and in all places at a speed of about 25% the speed of light. The temperature (particle speed) of the core during the collapse may jump from 4 billion K degrees (pre-collapse) to 100 billion degrees Kelvin.

In the professional's simulations, the particles fall toward the core center, hit a neutron core that first forms there and "bounce" off of it. A shock wave is created moving outward from the core. This, they say, travels into and through the other core layers to become the source of the blast we see. In this case, a remnant neutron star is left behind where the star's center used to be. The supernova simulations and some observations offer support.

In the case of a very large core, they predict that the pressure produced by the collapse's compression may be able to exceed the ability of even neutrons to support the core above the Schwarzschild radius. In this case, a black hole would result because of the pressure scenario.

Regarding the fate of the core, there is a difference in details between the Implosion Theory and more standard supernova models. The Implosion Theory predicts a black hole produced by the speed scenario instead of the pressure scenario.

Implosion centers

"Here, I have a diagram of the core of a giant star starting to supernova.

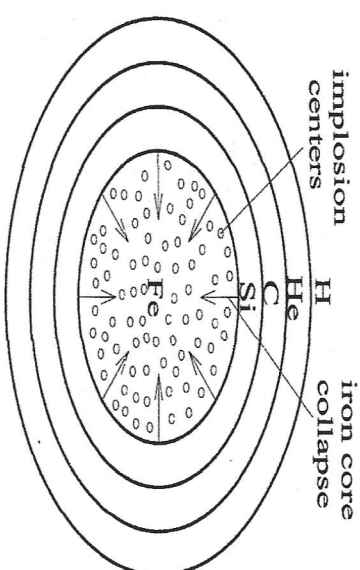


FIG. 15

As the giant star core becomes too big and starts to supernova, a process measured in microseconds, the iron in the core suddenly changes to neutrons. The dramatic reduction in volume starts rapid fall. Relativistic speed from the fall causes mass increase and size decrease. Because of the shrinking size of the particles, there is nothing to support the core against continuing fall. As shown, many implosion centers form around high speed leader particles. The core becomes a rapidly shrinking cloud of implosion centers, not a single point.

The Implosion Theory views the homogenous core collapse somewhat differently from the standard view. The electron absorption and conversion to neutrons cannot happen without first breaking down the iron nuclei and the lattice of electrons that separate them. Although the breakdown may start simultaneously throughout the iron core, the various subatomic particles would form a distribution of velocities (both speed and direction) as the breakdown proceeds. Each nucleon that is dissociated causes energy changes in the remaining structure. Support for this nucleon speed distribution view includes: 1) Hot collections of particles always have a speed distribution. 2) Different directions of travel result in different velocities. 3) There are various ways to change protons and electrons into neutrons and each gives off a different amount of energy. 4) There are various ways to dissociate large unstable nuclei into smaller, more stable ones. Each way consumes a different amount of energy. 5) Thermodynamics may favor some types of reactions earlier or later as the process proceeds. 6) Some reactions include high energy particle emissions and/or annihilations. As fast as the core collapse may occur, there must be multiple steps and a distribution of particle speed.

Added to the high speed collapse, the highest speed particles in the speed distribution, call them "leader particles", may approach 99% or more of the speed of light.

Relative to the stationary observer, the acceleration of the unobstructed fall at such high speed would cause the leader particle's mass to increase. This, in turn, would cause the particle's computed Schwarzschild radius to

increase. But the observer would also see the particle rapidly shrinking toward this same radius.

Here are some estimates to think about: If the mass of a particle (neutron) at 99% the speed of light is $1.67E-27$ kg, its Schwarzschild radius would be $1.24E-54$ meter while the particle's actual radius would be a much larger at $5.0E-16$ meter.

If the particle accelerates to 99.99 the speed of light, the mass of that particle would be $1.67E-26$ kg, its Schwarzschild radius would be $1.24E-53$ meter and the observed particle radius would be $5.0E-17$ meter. The mass and computed Schwarzschild radius each increased tenfold but the observed radius decreased tenfold.

If this series is continued, the observed particle radius reaches the Schwarzschild radius at about $1.24E-35$ meter. The particle mass would be $1.67E-8$ kg and the speed increase to add the last 9 (the last of 38 after the decimal point) is $1.0E-30$ meter/second, a tiny amount especially in light of the gigantic acceleration force involved.

The neutron weight is still very small but a giant mass increase will come with miniscule additional speed. Only space is needed and this is created by the acceleration and particle shrinking.

Other factors weight in. Of course, the total mass and gravitational field of the many leader particles and implosion centers rapidly increase and everything falls faster. The estimates above only include speed induced changes (special relativity). As the process proceeds,

there will be similar changes due to the growing gravitation field (general relativity). Also, whereas the accelerating force was previously between a small mass (neutron) and a much larger one (the core), as a neutron accelerates further the two masses eventually approach the same amount. The attractive force and the acceleration would be much greater as the two masses approach equal mass. Acceleration (and mass increase) becomes relative to the parent universe rather than to the core. Except for the reduction in volume as the particles zoom toward the star center, all these factors work in the same direction - more acceleration.

The essence of this story is that, with sufficient space to fall, enough gravity and a large enough starting speed, many neutrons quickly pass a barrier of no return and they become black holes.

From another perspective, the Schwarzschild radius "barrier" and black hole status just represent a road sign flashing by. The inevitability of descendent universe creation started way before the Schwarzschild radius was reached. The shrinking and mass increase cannot stop as the relativity induced endless acceleration must continue forever.

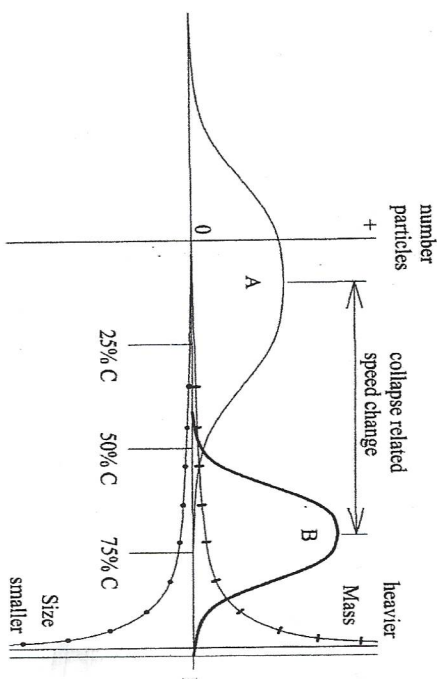


FIG. 16

FIG. 16 shows the relativistic change in mass ("heavier" with cross lines) and size ("smaller" with round dots) at any percent of the speed of light (relative approach to the star mass center). Superimposed are: A) The particle speed distribution curve at a specific, pre-collapse temperature (lighter line) and B) the particle speed distribution curve shifted to a higher speed (heavier line) due to the core collapse. It is notable that when the super-hot core is in stasis (pre-collapse) the particle velocity may be plus or minus (i.e. in any direction) with a minor adjustment for extra speed toward the core center. But once the collapse starts, virtually no particles are moving away from the core center. The very highest speed particles ("leader particles") of curve B are subject to sudden, relativistic change.

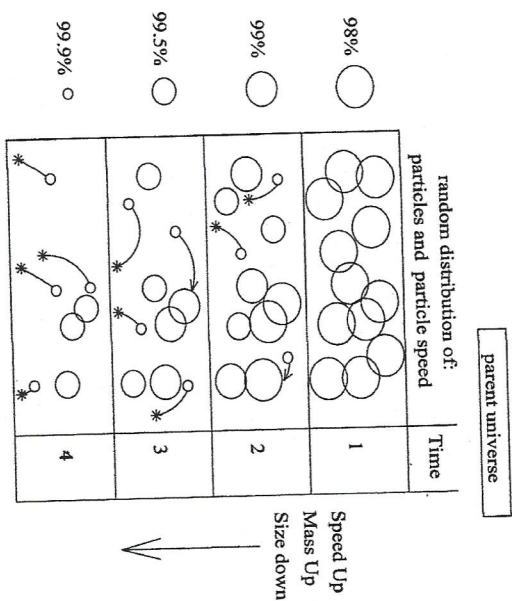


FIG. 17

FIG. 17 shows a hypothetical scenario of randomly distributed particles in a group at four successive times during their acceleration in the process of forming multiple implosion centers (black holes) in the collapsing star core. Time 1 shows the particles before any relativistic change. Time 2 shows particles with a distribution of size change due to the fall acceleration, high temperature and proton/electron combination during the change to a neutron configuration preceding the process of black hole formation. Acceleration due to gravity (downward toward the center in the figure) and represent particles so close to the speed of light that they are immeasurably small and their mass is very large. Times 3 and 4 show further acceleration due to falling and the increased gravity from particles becoming relativistic.

The leader particle's shrinking size and increasing mass acts as a catalyst to promote the next highest speed fraction of particles to approach that same relativistic speed. The particles cascade to form "implosion centers" that amount to many small and dispersed black holes that attract and aggregate other particles.

Compared to professional supernova simulations; in the case of a black hole formed during the Implosion Theory particle acceleration described above, there would be no falling core particles to do the bouncing and nothing at the center to bounce off of.

What happens to the non-core part of the supernova star according to the Implosion Theory is a different subject. One could surmise that, without the core below it, the layers above will also start to fall. Each layer is suddenly compressed and may heat to ignition before becoming relativistic and produce the supernova blast we see. An outward moving shock wave may assure complete burn of outer layers and movement away from the developing black hole in the center. Still, there would at least a part of the material that moves toward the black hole center. In what condition this material may enter the black hole is debatable and may be the subject of distant object research which may lend support to the implosion theory.

Particle first versus field first black holes

As already suggested, according to the Implosion Theory the arrangement and sequence of events during the core collapse are significant to the occurrence and organization of the descendent universe that results.

According to special relativity, high relative speed causes real changes in distance, mass and time. General relativity deals with great gravitational forces, acceleration and space/time distortion. If an object changes in distance, does the space between the particles of the object also change? Is space affected in the same way as the particle distance dimensions or in a different or independent way? Most specifically, what happens to super high speed particles in the huge gravitational field of the pre-black hole?

First, following the rules of special relativity, as the particle reach realistic speed they shrink, are unsupported by any pressure of collisions and will fall and shrink further at a determinable rate.

There is a second, largely independent, phenomenon involved. According to general relativity, the great gravitational field will make the particles shrink and distort in three dimensions.

There are two components to this gravitational space distortion field: 1) the iron core field and 2) the field of the star outside the iron core. The iron core field decides core collapse characteristics that the particles experience.

The gravitational field outside the iron core deepens the total gravitational field of the core and also increases the heat and starting speed of particles in the core (again special relativity). With smaller supernovas this component is too small, the average heat is not high enough, the leader particles don't accelerate enough and a black hole fails to form.

Although the relativistic changes due to speed and due to gravitational field are added together, the two amounts that a particle may experience may differ greatly at any one time.

In the core collapse conditions of a larger star the differences between the particle speed shrinking rate and the gravitational field shrinking rate, I argue, will produce a black hole with a descendent universe demonstrating the accelerating expansion we observe in our Universe.

Incoordination of special and general relativity

What are the alternatives regarding the timing of these special and general relativistic changes? First is the case where, because of the gravitational field, space is shrinking faster than the particles. This describes an existing black hole with new material falling in. From the falling material's viewpoint, one might imagine a never ending fall in one direction toward a point. Neither the fall nor the direction of the fall can be changed. This may be called a "field first" black hole.

Secondly, because of their speed, the particles may shrink faster than the space defined by the gravitational field (described above in the core collapse). Because the particles will always be accelerating faster than the field, this produces the all-around, accelerating outward universe predicted by the Implosion Theory. This may be called a "particle first" black hole.

The third possibility posits that the particles and the space must shrink at exactly the same rate. It is true that these two rates may be based on the same equations.

The similar accelerating forces cause both the shrinking of the particles and the shrinking of the space. However, it is well established that the two rates are largely independent. For example, relativistic speed and its effects may be achieved in deep space or along one gravitational geodesic with no gravitational distortion except self-generated effects. Similarly, a mass may travel through many geodesics and experience space distortion without approaching a relativistic speed.

Despite equation similarities, in the Implosion Theory described above, the two rates do not start at the same time. The particles were at a very high speed and were forming their own gravity centers before they started into what later comprised the relativistic gravitational field of the total black hole. It is reasonable that the particles must start to shrink first. In this case, the speed scenario, it is the accelerating particles and their increasing mass that starts the totality of the hole forming; not the other way around. Further, the radius of the star core would be well above the Schwarzschild radius computed from its mass and would "dilute" its gravitational field to delay black hole field formation. One may envision that the scattered distribution of the leader particles throughout the core disperses the gravitational field while the leader particles, themselves, rapidly shrink and gain mass. The many accelerating and relativistic leader particles, becoming ever more massive, lead the way into the black hole and further collect successive cohorts of the highest speed remaining particles. One might see this development as the growth of millions of mini-black holes that eventually comprise the whole field. Concerning the escape of the highest speed particles from one regime to another, common evaporation is an analogy. Concerning the aggregation of particles near

the leader particles, the seeding of a rain cloud with silver iodide is an analogy.

In contrast, the gravitational field intensity of the entire core would increase more slowly as an average of all particles and the space between them. With this head start, the leader particles and the follower particles that aggregate near them because of the increased mass and gravitation will always be accelerating faster and shrinking away from the edge the universe in the way we observe and in the way predicted by the Implosion Theory.

In a completely different situation, an already formed ultra-heavy object may receive more material later in its life. For example, a white dwarf may draw in matter from an orbiting star. On a small scale, this forms a nova. But on a much larger scale, for example in the case of an eccentric collision of a red giant with a white dwarf, a Type 1a "thermal runaway" type supernova may form. In this latter case, the entire binary system is thought to be destroyed.

However, if a central remnant is conjectured, it would probably be a neutron star or a black hole. In the case of black hole formation, the star matter accreting onto the white dwarf may be traveling at very high speed even if not yet relativistic. Once enough star matter has been added and the Chandrasekhar limit has been surpassed, a white dwarf star collapse (same as core collapse) may provide the speed boost to initiate the speed scenario implosion. This may yield a particle first black hole. This situation cannot occur if the object is a neutron star.

On the other hand, if the dense object is a neutron star, current theory suggests that the mode of black hole

formation would be the pressure scenario, if this level of compression is possible. A field first black hole would result and a descendent universe like ours could not be formed in this way.

In the similar way, matter could rain down on an already formed black hole. Of course, no supernova could result and no black hole forming process would occur. The relation of the falling material and the gravitational field is a field first relation. But the black hole may have originally been a particle first type with a descendent universe like ours. In this case, the falling material could leave evidence visible in the descendent universe. Black holes surmised to be at the center of galaxies may be in this class.

The Descendant Universe

Character of the descendent universe

Assuming a particle first black hole with the particles accelerating faster than the gravitational field grows, the descendant universe right after the implosion would have many similarities to the environment ascribed to the Big Bang Theory time zero. It would be very hot (high speed particles), generate background radiation and be comprised of a "dust" of particles, mostly hydrogen (the protons and electrons decayed from the neutrons), surviving the supernova. The particles would continue to shrink, accelerate and get more massive.

Remember, though, time would slow down proportionally and, to all particles in the same frame of reference, the rules of nature would be exactly the same as in the parent universe. Gravity would work as it does for us while stars, galaxies and other structures form normally. The major observable remnant of the universe's origin would be the accelerating character of red shift over distance, a reminder of the continuing acceleration and shrinking of the particles.

Descendant universe geometry

The geometry of the descendant universe with regard to the interaction of particles is not the geometry that would be found in a Big Bang Theory universe. Even though the particles are shrinking and seem to be moving apart, their inward motion would promote the mixing necessary to produce the universe we see. Moreover, the organization of the matter of our Universe into cells (galaxy clusters and super-clusters) may be the result of the scattered fall of the leader particles forming many implosion centers as the supernova core collapsed. The implosion centers may comprise the gravitational disturbances that grow with additional material and initiate galaxy, cluster and super-cluster formation, a phenomenon otherwise difficult to explain.

Aggregation and separation phases of implosion

Further elucidating the geometry of the descendant universe, the particle first black hole formation process may be divided into two phases: 1) the aggregation phase and 2) the separation phase. During the aggregation phase the leader particles in the core gain mass quickly relative to the remaining particles. As the core collapses to a small portion of its former size, the

increased gravity of each leader particle attracts other particles, aggregates them into implosion centers and then works to reduce their relative speed. In this phase of the developing black hole (descendent universe), particle to particle attraction dominates and the result is a clumping of the particles, tiny in size with relativistic speed and great mass.

The greatest aggregation may occur as the leader particles fall and pass near other particles, speeding them up and reducing the follower particle to leader particle relative speed. The reduced size of the leader particles limits actual collisions that could slow the leader. Because of their small size, great density and momentum, the leaders may actually pass through other particles. The particles are attracted to the leader in a way that tends to equalize the relative speed of all particles. All the time, the implosion centers, as groups, continue to fall, accelerate and react in a relativistic way.

Still, on the tiniest scale of individual particles, they are all shrinking so fast that they are moving apart and no central body or "singularity" can form during the aggregation phase.

Once all the particles have reached relativistic speed but their speed relative to each other has been roughly normalized due to their mutual attraction, the total gravitational field then becomes relativistic, too, and the particles start the separation phase where all particles experience an apparently expanding universe as a result of their continued shrinking, more or less in unison, relative to the total field. In this phase, the totality of the gravitational field dominates particle shrinking and the particles nearest the center of the gravitational field will accelerate and shrink fastest and an implosion universe

will form with the extreme edges away from the field center accelerating more slowly.

During the separation phase, local gravity can cause compact bodies to form as they do in our own Universe. But black hole "singularities" are mathematical abstractions and, according to the speed scenario, cannot exist in reality.

As a result of these two phases, the particles are first forced to aggregate because of the gravity their high relative speed causes and then seem to separate because of their reduced relative speed and the growing overall concentric field force that continues their shrinking.

It might be imagined that, depending on the amount of mixing due to the distribution of particle speed, amount of gravity and amount of reduction in core size, that the aggregation phase mixing may be more or less complete and additional follower particle may experience gravitational attractions to more than one implosion center and form bands or walls that may later separate the large voids that develop during the separation phase.

One may compare this two phase operation with the making of plastic foam. First a plastic fluid is mixed with a gas by compressing them together (aggregation phase) and then the pressure is released to allow expansion (separation phase). The result is a foam-like structure.

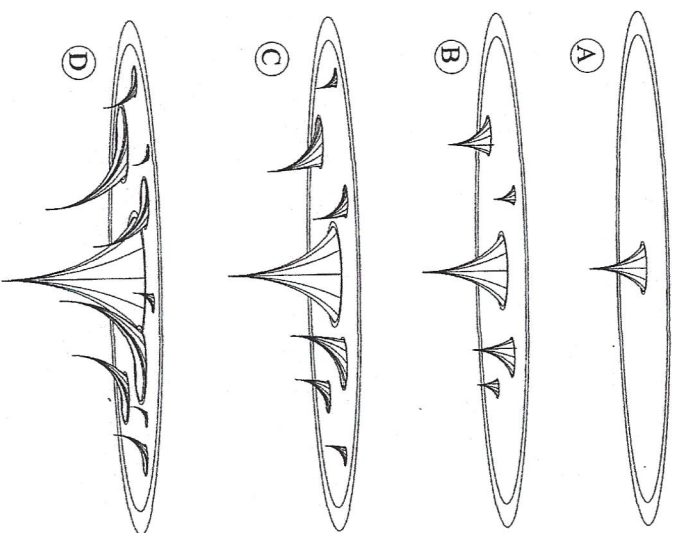


FIG. 18

Figure 18 shows views of a disk representing a small part of a hypothetical concentric sphere surface (layer) in the core. In this area, one of many implosion centers is developing an extreme gravitation field during four sequential moments in a giant star core collapse. Down is toward the gravity center. This occurs in a particles first black hole in the aggregation phase.

At time A, one of many leader particles, the fastest fraction of the hot, high speed particle's distribution, has become relativistic at, perhaps, 99% or more the speed

of light. The cone represents downward (toward the center of the core) acceleration, rapid reduction in size and rapid increase in mass: The leader particle is forming its own gravitational field.

At time B, the leader particle's increased mass, acting as a catalyst, has caused a gravitational disturbance that encourages nearby particles to also reach relativistic speeds.

At time C, the particles are starting to aggregate under the influence of the now extremely heavy leader particle.

At time D, the growing mass of the leader particle has been accentuated by the growing mass of follower particles. Their attraction toward the central leader particle and the implosion center increases.

It should not be forgotten that the geometry of the aggregated particles during the separation phase is modified by the normal gravity experienced in the descendent universe. Proportional to the mass and distance between the particles and their aggregations, normal gravity serves to draw together and contour the edges of this universal "foam".

In contrast, with the lack of any large masses to produce gravity, it is difficult to imagine how the minute particles of a Big Bang explosion separating outward at near the speed of light could possibly aggregate into the galaxies, clusters and voids we see.

Long run universe creation cycle

In the long run, a descendent universe is formed, matures and becomes a parent universe with many

descendent universes of its own. The parent eventually cools and disperses into infinity. We are one universe in an infinite series of universes inside of universes. Length (space), mass/energy and time are eternal but shrink, increase in mass/energy and slow relative to what was left behind. In contrast, all organizations, including universes, are made of these eternal components and are born, mature and die. Gravity impels this process by supplying the driving force.

Advantages of the implosion theory

The advantages of the Implosion Theory are:

- 1) It explains where our Universe's mass came from.
- 2) It explains the driving force of the accelerating expansion we see (gravity).
- 3) It explains the mechanics of the accelerating expansion of our Universe.
- 4) It explains background radiation.
- 5) It explains the process leading to the gross structure of our Universe.
- 6) Natural rules such as cause/effect and repeated phenomenon remain intact.
- 7) No "beginning" needs to be explained. Universes evolve in a continuum through eternal time.
- 8) It explains what happens to infinite momentum inside black holes.

- 9) It explains the ancient structures found at extreme distances from Earth.

- 10) Using the speed scenario, it shows how an incoordination between special and general relativity in black holes can form universes with dimension instead of singularities.

Other Talking Points

The mass problem

A black hole is very big, but its parent universe is very much bigger. How can the mass of one black hole become the mass of a universe? If the shrinking of particles and apparent expansion in our Universe is caused by our acceleration, then our mass is increasing proportionally, at least with regard to the parent universe. Further, the mass of different parts of our Universe not in the same relativistic frame of reference may have increased mass relative to each other. At least with regard to the outer edges of a universe, the center is continually gaining mass. Strictly read, special relativity would have matter in all distant, high speed and apparently accelerating areas gaining mass.

As mentioned before, the continued gravitational acceleration of mass endlessly produces and incorporates the gravitational force into the mass. This describes a perpetual motion machine of the first kind that actually produced additional mass/energy. In this view, mass must continually be increasing.

As a proponent of balance and sustainability, I've often wondered, if thermodynamics dictates a one way cooling and dispersion of energy, what keeps existence going? A proponent of the Big Bang would say it doesn't keep going. Existence is just a one-time accident. In the biggest picture, beyond burning stars to ash, in order to balance thermodynamic rules there must be a counterpoise that makes things come back together. Thermodynamics is about separation and entropic energy dissipation while gravity is about aggregation. If the gravitation driven mass/energy production side of the equations isn't there, existence isn't there either.

The particle problem

Another conundrum of the Implosion Theory has to do with the total number of particles in each universe. If this universe creation process is to continue ad infinitum, the number of particles, protons and electrons, must be taken into account. Of course, the number of these particles in a universe is inconceivably large. If the number is finite, though, the continuous division of universes into multiple decedents will eventually result in not enough particles. Mass is made of energy confined, for whatever reason, to one place. A black hole, through its gravity, is generating an extremely large and continuously increasing amount of energy. If the mass of a universe continually increases, it may be argued that the production of new particles is necessary to assure that each proton does not become too massive. Still, the process by which energy changes into proton/electron pairs is unexplained. On the one hand, one might speculate that this particle multiplication process can only occur in the black hole environment and, thus, may be difficult to test scientifically. Alternatively, it may be that the number of particles in any universe is infinite in the same way space and time (and probably mass) are also infinite and, thus, can be divided endlessly.

Where is the gravitational field?

On occasion I've thought of what it would be like to go to the center of the Earth. There is no "below" to pull you down to. Would there be any gravity at all? But the gravitational field is still there. The mass is all around you. Would it pull you apart in all directions? Would the various forces cancel each other out? Or would the normal gravity remain as a result of the field created by the totality of the Earth? In what direction?

A black hole would present some of the same questions. For example, would a black hole have to form away from the star center where gravity can still have its force and where there is still space to accelerate particles to the relativistic speeds? There are significant differences between the center of a spherical object and a particle first black hole: 1) Once the pre-black hole particles reached relativistic speed they would surpass a buoyancy barrier and fall into a sort of further interior (ultra-small) space that was, until then, inaccessible. Space has no limiting size either too small or too large: 2) When the separation phase gains ascendancy the gravitational field is so intense that it doesn't need an actual central body. There is just a central area that keeps getting farther and farther away from the shrinking particles accelerating at near the speed of light toward a center they can never reach.

Falling in series

As the black hole is formed, it accelerates and draws in all matter not blown away by the supernova blast. Even though the core itself may be homogenous, later material falling into the hole may have a more varied character.

There may be an outermost layer or shell of a universe that may have, at the earliest stage, contained elements heavier than hydrogen and helium. Although these same elements also occur in our region of the Universe, they may be found in different proportions at the farthest distance. However, considering the extremely high temperatures during the implosion event and the tendency for heavier elements to be hidden deep in

stars, these hypothetical elements may be difficult to detect at this late stage.

Nevertheless, in the area of a descendent universe farthest from the center, chemical evidence for the implosion theory may be observable.

The parent's point of view

It may be possible to use a very accurate version of the Hubble constant to compute the parent universe time after implosion to form a view of the current status of our parent universe. Conversely, we may be able to assess the age and maturity of a descendent universe by the characteristics of a black hole in our own Universe.

Pre-black hole reality

In light of the difficulty in understanding the effects of relativity, it is appropriate to keep in mind the environment of a black hole just before it forms. It would be an enormous mass of sub-atomic particles of assorted velocities approaching a hundred billion degrees, the particles turning, spinning and jostling in every direction but still dominated by a core collapse and a gigantic gravitational field distorting and forcing all mass toward the center and toward relativistic speed. One must consider that, because of these chaotic conditions, some precepts of relativity, for example the equivalence principle or the dimensions of distortion resulting from special relativity, may behave unusually or must be viewed in a different way.

Impossibility of the Big Bang model

Given the impossibility of the Big Bang model, a better approach might be to analyze the true information we have about our Universe, including its expansion, black holes and supernovas, and try to create an agreement between this reality and the various relativity theories.