Infinite Particle Physics

Chapter 8 - Cosmological Implications Of An Ether

In this chapter, I elaborate on the reasons why an ether theory is incompatible with the current belief that the universe began with a "Big Bang". After this, I suggest a weird, but credible, creation scenario capable of producing a universe of the type we observe. This lengthy proposal leads naturally into showing why IPP's absolute, non-expanding universe generates the same phenomena which has convinced astrophysicists of the Big Bang's validity. Finally, I tackle the apparent conflict between absolute space and Relativity.

Why A Big Bang Is Out!

1) *A Singularity Is Impossible In IPP*

   Since we postulate that ECEs are incompressible, and already in contact, we see that the notion of a *singularity* has no meaning in IPP. The greatest amount of compression possible for the universe would be when all the ECEs are in the body-centered cubic lattice form. This conversion would shrink the volume of the universe by only 23%, into a form which could best be described as a universe-size black hole. Incidentally, if we accept my calculated figure for the simple cubic lattice constant, $\ddot{u} = 1.8 \times 10^{-14}$ cm, we can get ECE density figures for both lattice structures: the density of ECEs in the simple cubic lattice form is 1.7×10^{41} ECEs/cm^3, while the density in the body-centered cubic lattice form is 2.2×10^{41} ECEs/cm^3.

2) *Elementary Components Of ECEs Are Incompressible*

   One might argue that greater primordial compression should be possible than exists in the body-centered lattice form. This would require that ECEs be composite entities, capable of being further compressed into even smaller, neutral particles, analogous to the conversion of hydrogen atoms to neutrons, or anti-hydrogen atoms to anti-neutrons. However, this conversion would eliminate the attractive forces between ECEs, thereby raising this question: What could draw these neutral particles toward one another? How about gravity? Could it, alone, pull these hypothetical condensed particles together? Obviously, according to IPP it could not, because, as we have seen, gravitational attraction is simply a skew in the lattice surrounding a charged defect, whose asymmetry leads to progressive displacements of the center of the lattice density oscillations effecting defect translocations. Since there could be no skew and no lattice density oscillations in the body-centered cubic lattice, there could be no motion leading toward further compression.

3) *Gravity Cannot Contract The <u>Whole</u> Universe Into A Black Hole*

   If matter is merely shrunken space in the vicinity of defects, then its consolidation into a single black hole would still leave a large portion of the universe in the simple cubic lattice form. In an IPP cosmology of infinite numbers of touching ECEs, total cosmic shrinkage must be conserved. Hence,

increases in ECE density in one place must be offset by decreases in ECE density somewhere else.

4) *The Body-Centered Cubic Lattice Can't Blow Up*

Even though our universe cannot evolve back into a single black hole, we are free to imagine the *creation* of a universe *as black hole* surrounded by a "true void". Would such a system blow up? Perhaps, but not in a Big Bang sense of expanding simultaneously throughout; this is prohibited by the postulated ECE "inertia". Instead, what we might expect to happen is that the exterior of this primordial mass of body-centered cubic lattice would expand rapidly at the speed of light, or somewhat faster, into the true void, forming the simple cubic lattice structure, layer by layer, until, over time, the entire structure would have converted from body-centered to simple cubic lattice. We should notice that this expansion can take place only because, at the interface of the true void, the ECEs will tend to move toward expansion-contraction equilibrium, thereby assuming spacings far in excess of their normal touching condition. Understanding the details of this expansion would clearly require that someone find explanations for ECE *"charge"* and ECE *"inertia"*!

5) *Body-Centered ECEs Cannot Evolve Into Our Universe*

Could a single huge black hole expand, in this manner, into the sort of universe we observe around us? Obviously not, since the ultimate fate of this scenario would be a crystal of widely spaced ECEs, incapable of engendering any matter other than void & replacement defects, and these would have characteristics greatly different from those of our world, due to increased ECE spacings.

Making An ECE-Filled Universe Without A Bang

So, you ask, if a Big Bang is out, how can a world full of touching ECEs be created? I don't have a convincing explanation, but I can suggest a fanciful scenario which is rather compelling! Here's how I imagine the Maker of the Universe going about the task:

1) *Create Machines To Produce ECEs*

As the Maker, your first job would be to invent a machine, capable of producing, in serial fashion, an infinite number of ECE generating machines, each capable of producing both polarities of ECEs, in equal numbers, pair-by-pair, out of absolutely nothing.

2) *Place The Machines In The Void*

Next, you'd carry your machine-producing machine at super-luminary speeds in a random-walk pattern throughout the primordial void, dropping off, and turning on each ECE-producing machine as soon as it is manufactured. You scale your speed through the void to your rate of production, so that your dropped-off ECE-producing machines are spaced in the primordial void comparable to the average spacing between galaxies.

3) *Program The Machines*

You pre-set the rate of ECE generation of each machine so that it, initially, exceeds the rate at which the simple cubic lattice expands into the primordial void. This will create a rapidly expanding core of ECEs in the body-centered cubic lattice state surrounding each machine, in each primordial void location. With a constant rate of ECE production, the body-centered lattice core will rather quickly reach a fixed diameter at equilibrium with the rate of expansion of ECEs into the primordial void. Equilibrium would occur because the "void's" resistance to ECE incursion is inverse to core curvature.

4) *You Keep Active Forever*

You continue manufacturing and placing your ECE-producing machines forever, paying only enough attention to make certain that you confine your activity to the primordial void, for only there can you travel at super-luminary speeds.

5) *Making Your Job Easier & Faster*

Is this serial deposition of ECE-producing machines too slow for you? Simply make your primary machine capable of dividing like an amoeba each time it drops off an ECE-producing machine, and equip all these rapidly multiplying primary machines with super-luminary ECE-avoidance radar, and super-luminary self-propulsion. This ruse will fill the universe with ECE-producing machines in short order!

Monitoring The Creation Scenario

So what is happening, over time, to the space surrounding the dropped-off ECE-producing machines? Here is what I imagine:

1) *The Expansion Phase*

At first, for many eons, the produced ECEs expand into the primordial void, forming a polycrystalline structure, with widely spaced ECEs in expansion-contraction equilibrium, full of plus and minus voids and replacement defects, and lattice density oscillations (primordial photons), which are all in a strange kind of limbo, because the simple cubic lattice is being created at the core interface at the speed of light, but this speed of expansion must, of course, diminish radially, since the volume of each progressive shell increases as the square of the radius. Thus, each created photon and particle finds itself in the curious situation of having a high probability of reflecting off the cubic lattice/true void interface, but unable to return to the core interface, because the ECEs are moving outwardly at the speed of light. Hence, the photons and defects will be refracted by the differential outward propagation velocities of successive shells into a curve which cause them to reflect again, and again, off the cubic lattice/true void interface. Since this interface is moving outward at high velocity, each reflection will reduce a photon's energy, or slow a particle's velocity, transferring the lost energy into further lattice density oscillations (photons). Thus, over time, the number of photons increases, and their energies reduce. Also, the velocities of all defects through the cubic lattice decrease, perhaps, eventually, to thermal velocities.

2) The Compression Phase

Eventually the expanding fronts of ECEs from adjacent ECE-producers contact each other, at which time the cubic lattices suffer compression in the directions connecting the various ECE machines. Because of the random placement of these sources, the compression phase will obviously begin at different times in different directions, and form boundaries over time between the expanding cubic lattice fronts, like a group of nesting soap bubbles. This differential timing of the galactic interfaces has interesting implications, which we shall explore later. With continued ECE production, this compression will continue until all the galactic ECEs are in contact, which, again, will occur at different times in different directions. Since this compression reduces the distances between ECEs, all lattice density oscillations will increase in frequency; thus, both photon energies, and particle momenta will increase during the compression phase.

3) The Torsional Distortion Phase

From this point on, further production of ECEs results in torsional distortion (or lattice shrinkage), which further shrinks the wavelength and increases the energy of the primordial photons. It is at this point that baryon production begins, as the numerous lattice voids collapse in the presence of pairs of oppositely directed high-energy primordial photons to form c-void-pair clusters (baryons).

4) Polycrystalline Space vs. Single Crystal

With all the ECEs in contact, and with continuing ECE production, we might expect the polycrystalline cubic lattice to begin rearranging toward a single-crystal form. However, this conversion may not occur; the tendency for hexagonal close-packing at the polycrystalline grain boundaries of the space lattice might actually produce a more compact space, forestalling rearrangement. Possible evidence for this: the dark matter inferred from the excessive rotational velocities of stars at the periphery of galaxies? Gamma-ray bursts, when two adjacent "grains" re-crystallize into a single "grain", or when pyramidal grain boundaries become “leveled” by interaction with passing nuclei? Globular clusters? Any zone of close-packing, by analogy to W & Z particles, would constitute a very substantial mass, and would constitute mini-gravitational traps to cause voids to congregate, if they were far removed from the gravitational attraction of the galaxy core, and these traps would be even more effective at the interfaces between galaxies, where the core gravitational fields are completely, or largely, canceled. At these interfaces, we should expect to find large concentrations of void-pairs, along with a large flux of oppositely-directed photons — a sure recipe for baryon production, and a likely source for peripheral globular clusters.

5) Matter Migration To The Galaxy Center Phase

When the torsional-compression phase is reached, the continued production of ECEs by the central machine will start expanding the central body-centered lattice core, because the rate of expansion into cubic lattice space will have decreased. Thus, all the matter which has been created in each galaxy will come under increasing gravitational stress, and will move with increasing rapidity

toward the galactic center. Notice that the random placement and random time of initiating ECE production of ECE generating machines will have induced subtle rotations into some of the galaxies, through irregular times of compression in various directions. This rotation will naturally accelerate with the increasing central gravitational attraction, leading eventually to rotating galaxies. Meanwhile, since this central contraction will be general in surrounding galaxies, the "empty" space (cubic lattice space free from almost all matter, except neutrinos) between galaxies will greatly increase, leading to the sort of universe we now see around us. If huge pockets of low energy neutrino clusters were converted to matter in the neutral gravitational zones between galaxies, they would not be immune to movement, because each galaxy has a different ambience of surrounding galaxies, and there will be differences in the timing of the expansion of their central cores. Thus, whichever galaxy had the more rapid change of central gravitational attraction will capture this mass of matter, leading to a satellite globular cluster.

The Matter Creation Process

ECE Expansion Into True Void Creates Only Leptons & Energy

Lepton production obviously begins long before the primordial photons have sufficient energy to form baryons — probably at the moment that the first ECEs are produced, because the expansion from a spherical blob of body-centered cubic lattice into simple cubic lattice cannot be smooth. The resulting "empty space" will undoubtedly be polycrystalline, and will have many defects, primarily *voids* of both polarities, but many replacement-defect pairs may be produced, which we can consider as proto-electrons and proto-positrons, since they will be greatly expanded until the lattice suffers compression. These will be created at the body-centered cubic/simple cubic lattice interface, and will be launched at high velocities in all directions; but, through processes I have explained above, their velocities will undoubtedly diminish over time, as they will lose energy to the lattice each time they bounce off the true-void/simple cubic lattice interface. Thus, there will be *voids* of all velocities in the simple cubic lattice when baryon production begins. I suspect that these baryons, formed by early pairing, and later collapsing, of *voids*, will initially have a neutral charge, and will be predominantly neutrons; here is why:

1) Void-Clusters Are Widely Distributed

It might seem, at first thought, that all the precursor *voids*, having tangible, if infinitesimal, mass, would have migrated to the cubic/body-centered lattice interface, because that is the direction of the dominant gravitational gradient. However, this conclusion has ignored two important things:

1) The outward flow of ECEs, initially at light speed at this interface, will prevents the return of *voids* until the onset of compression and torsional distortion phases. High local concentration of charged defects will also act to deflect returning *voids*, whose small mass takes very little energy to overcome gravitational influences.

2) The presence of pockets of mass at the grain-boundaries of polycrystalline space, through close-packing effects, will produce local gravitational fields which will trap low-velocity void-pairs near the polycrystalline grain

boundaries. These micro-gravity effects will naturally tend to be more important in remote regions, where the central gravity is weaker, but, since close-packing is analogous to the W & Z particles, these local effects may be surprisingly strong, and may trap particles even fairly close to the simple cubic lattice/body-centered cubic lattice interface.

2) Low Velocity Voids Form Neutral Clusters

A fraction of the numerous plus and minus *voids*, produced continuously as the body-centered lattice expands into the primordial void, will have attained very low velocity relative to the equilibrium-spaced simple cubic lattice. These will have moved along gravitational gradients, and will congregate around gravitational traps. Thus, over the eons of time before the ECEs touch, they will tend to form neutral pairs or clusters of pairs, a cluster of three void-pairs being particularly stable, because the geometry permits the equalization of the oscillatory amplitudes of the three pairs, by providing alternative pairing opportunities. Only neutral clusters can form, because unpaired *void*s will be repelled by those of like charge.

3) Energetic Photon Collisions Produce Mainly Neutral Baryons

When the energy of the primordial photons increases sufficiently, and wherever two energetic oppositely-directed primordial photons meet near the center of any void cluster, these void-pairs will collapse to c-void-pairs, producing neutral pions, neutral kaons, neutrons, and, perhaps, some neutral hyperons. Occasionally, when two primordial photons of nearly the same energy meet with nearly opposed trajectories in the vicinity of *voids*, or void-pairs, and generate undedicated shrinkage exceeding two proton masses, matter-antimatter pairs of charged baryons will form, but the number of neutrons should far exceed these charged baryons, because only half as much undedicated shrinkage is required to create them.

4) New Phenomena In Early Stages Of Creation

Almost all the mass-energy of proto-galaxies will be in the form of radiant energy. Initially, matter production will be almost perfectly balanced between matter and antimatter. These will simply meet and annihilate, producing photons if they are charged leptons, and producing photons & often neutrinos if they are charged hadrons. Photon production will continue with increasing intensity, as ECEs continue to be produced, until either matter, or antimatter, becomes dominant. I explain the processes leading to dominance, next.

5) Matter/Antimatter-Neutral Neutron Leads To Dominance

Forming a neutron from a neutral void-cluster, requires less energy than forming a proton/antiproton pair; therefore neutrons will be created in great excess, compared to charged nucleons. This excess is the root cause of matter/antimatter dominance. Although the half-life of neutrons is but a whisper in cosmic time, *fifteen minutes is an eternity* in the milieu of atomic processes. Thus, as proton/antiproton pairs are produced, or neutrons decay to protons and anti-protons, there will be countless opportunities for surrounding neutrons to bond with these emerging charged nucleons. What is of utmost

significance here is that, in IPP, there is no distinction between neutrons and anti-neutrons — instead, there are only two opposite T-slant forms. Hence, the accretion of a neutron to a charged nucleon exerts no matter-antimatter influence; and as more nucleons add, to produce, say, hydrogen 2 & 3, or anti-hydrogen 2 & 3, the normal decay processes will produce helium 3 & 4, or anti-helium 3 & 4. We know from experiment, that the decay processes of neutrons bound in a nuclide cluster always yield a charged nucleon of the same polarity as the core charged nucleons. Thus, this addition process of matter/antimatter-neutral neutrons, introduces a random probability element in the creation process — and this is all that is necessary, after countless annihilations, to account for the dominance of matter (or antimatter)!

6) *An Ambience Of Matter Biases Neutron Decay To Matter*

If we postulate, as we do in IPP, that a neutron is both particle and antiparticle (as is already accepted for the neutral pion, and very likely for the neutral kaons, which are seen to change spontaneously from matter to antimatter, and vice-versa), we should see that the invariable decay of isolated neutrons to protons (in our world) gives testimony that the proximity of matter must also exert a matter/antimatter bias. Whether this bias is created by the presence of orbital electrons around atoms, or by a different mix of ambient neutrinos, or something else, is a question which may yield to the right kind of experiment. The significance of an ambience of matter (or antimatter) creating a bias in primordial synthesis would obviously be to accelerate the dominance of matter (or antimatter) over its opposite in a contest determined by whichever valence created the larger excess through random processes.

7) *Continuing ECE Production Yields More Matter*

As long as ECEs continue to be produced by the central ECE-producing machines, matter will continue to form wherever sufficient *voids* exist, so that the well understood processes of star formation will continue unabated, with new clouds of matter constantly forming, condensing into stars, which, in turn, burn into their various death-throes, leaving cinders of brown dwarfs, neutron stars, or small black holes, according to their initial mass.

8) *Primordial Abundances In Cold Neutron Synthesis*

We know from laboratory experiments that neutron bombardment will create hydrogen 2 from hydrogen 1, hydrogen 3 from hydrogen 2, which decays to helium 3, and helium 4 from helium 3. Thus, there should be no objection to the possibility of cold, diffuse primordial synthesis, once a process for neutron synthesis has been elucidated. What needs proving is that this cold, diffuse manner of adding neutrons will yield the observed primordial abundances. This is just another problem that I must turn over to my erudite readers!

I regret that I can't offer a better creation scenario than this obviously tongue-in-cheek one — but some of you can surely think of a better one!

Arguments Given For The Big Bang Creation Scenario

Now, having argued that the Big Bang has no place in IPP cosmology, I must accept the challenge to show how the IPP creation scenario can provide equally satisfactory explanations for the phenomena which have convinced cosmologists of the Big Bang's validity. Here are the dominant items on their list:

1) *Redshift Correlates With Stellar Distances*

   The age of the universe, obtained by calculating backwards to a singularity from the rate of recession of distant galaxies, inferred from progressive redshift of spectral lines as starlight comes from increasing distances, correlates, it is said, with the age of the oldest astronomical phenomena.

2) *Background Microwave Radiation*

   The uniformity of the background microwave radiation, and its equivalent black-body temperature, is said to be consistent with adiabatic cooling of the Big Bang from the inferred temperature at the moment of decoupling, at the inferred rate of expansion over the inferred life of the universe.

3) *Hydrogen/Helium Ratio In Uncondensed Stellar Material*

   The ratio of approximately 76% hydrogen, 24% helium, in primordial uncondensed stellar material, as inferred from astronomical observations, is precisely the ratio, it is said, that one gets from thermodynamics and nucleosynthesis calculations of the Big Bang expansion dynamics. Big Bang proponents assert that the time between the inferred temperature and density at which protons and neutrons cease to be at creation/annihilation equilibrium with energy (moment of decoupling), and the lower temperature and density at which neutrons decay prior to bonding, is just adequate to permit this ratio between hydrogen and helium to develop.

4) *The Earlier State Of Evolution Of Distant Galaxies*

   Looking at distant objects in space is looking backwards in time; hence, one would expect to find that distant galaxies are at an earlier stage of evolution. The changing character of galaxies with increasing redshift, among which are increasing amounts of higher energy radiation, higher total radiation intensity, and new phenomena, not observed in closer galaxies, is in harmony with an explosive start and finite age of the universe.

How These Clues Fit IPP's Creation Scenario

1) *Increasing Redshift With Stellar Distances*

   As we have seen, Infinite Particle Physics is incompatible with the concept of an expanding universe, so it is fortunate that the Theory has produced new concepts for neutrinos that permit us to understand redshift as a phenomenon of a "static" universe. Redshift is almost always interpreted as evidence that distant galaxies are receding from us, but, in IPP, I explain the redshift as a

progressive transfer of minute amounts of a photon's energy, as it encounters, and ionizes, electron neutrinos it finds directly in its path. For this concept to seem plausible, the energy decrement per encounter would need to be in the neighborhood of about 1/10,000 of a visual-light photon's energy, because coarser decrements would lead to broadening of spectral lines, through the obvious randomness of the encounters for each photon. How can we determine what the average energy decrement is? We have an unused phenomenon, seemingly useless to an anti-Big-Bang creation scenario, which just happens to be adapted to our need. This is:

2) *The Background Microwave Radiation*

The background microwave radiation, in IPP, is simply the artifact of the return to the ground state of myriads of plus-minus *void* systems (electron neutrinos) of the space lattice, after each has been excited (ionized into two opposite polarity *voids*) by absorption of a minute fraction of a photon's energy. If we assume that the recombination of any two opposite-polarity *voids* results in the emission of a photon of microwave energy (along with an equal & oppositely directed energy adding to the void'-pair's momentum), we can determine the average energy decrement of a photon's encounter with an electron neutrino by finding the average energy of the background microwave radiation, and multiplying this by 2. Since we know that the black-body temperature of this radiation is 2.7°K, we can easily find the interacting photon's average energy decrement in eV by multiplying the radiation temperature by a conversion factor*:

$$2 \times 2.7 \times 8.6 \times 10^{-5} = 4.6 \times 10^{-4} \text{ eV}$$

* I obtained this factor from W.S.C. Williams (1991) *Nuclear and Particle Physics*, Claredon Press - Oxford, p. 345, Table 14-1.

This value is 1.8/10,000 of the energy of green light (2.55 eV), which makes the decrement somewhat more than we stipulated, but still within plausible range. Since this seems encouraging, let's discuss what is required for this process to work:

The Requirements For Void-Pair Microwave Production

- **First**, in order to have a suitable number of encounters, we must assume that void-pairs (electron neutrinos) are more or less uniformly distributed throughout all the reaches of the cosmos, and are many orders of magnitude more abundant than nucleons, and that a reasonable percentage of these have slow enough velocities relative to the space lattice to permit ionizations to occur.

- **Second**, since a void-pair is neutral except when viewed from its center, the absorption of energy from a passing photon requires that the center of the photon lattice-density oscillation comes to momentary rest *between* the plus and minus *void* components of the neutrino; thus, this phenomenon is bound to be a very rare event, and only the vast distances to stellar objects, and the super-abundance of neutrinos in the cosmos, assures that every photon will undergo numerous encounters in its passage to earth. If the notion of ionizing a neutrino with only a portion of the photon's energy seems hard to swallow, you may reflect

that this process is perfectly analogous to the progressive ionization of multiple atoms by high-energy photons, such as x-rays.

- **Third**, the black-body character of the background microwave radiation may be attributed to the random velocities of electron neutrinos through the space lattice, which "smear" the energy levels of its quantum mechanical system, in a somewhat analogous manner to the black-body radiation of the "smeared" energy levels in compressed gasses, liquids, & solids. What is compelling about this scenario for the background microwave radiation is that it clearly explains its directional uniformity, since we should expect the photons generated by the recombination of opposite polarity *voids* to have equal probability of heading in any direction.

Why Photons Can Pass Undistorted Through Light-Years Of Space

For the IPP explanation of redshift to be true, bundles of photons must be able to pass undistorted through billions of light-years of polycrystalline space, full of dark matter, *voids*, and void-pairs. We can understand why this is possible, if we recall that a photon's energy is distributed in equal radial increments to infinity, that it, therefore, has homeostasis, and that the interaction with a void-pair cannot alter the trajectory of a photon, because the two separating components of the void-pair, plus & minus voids, have *precisely identical masses*.

3) *Primordial Hydrogen/Helium Ratios*

Could the measured ratio of 76% hydrogen to 24% helium in primordial gas clouds result from IPP's creation scenario in which nuclides grow by accretion of cold primordial neutrons? It would be improper either to assert or to deny this until this scenario has been given a comprehensive analysis by astrophysicists.

4) *The Changing Character Of Galaxies With Distance*

I have given a possible explanation for the changing character of galaxies with increasing redshift (or distance) in 4), on page 8-6. This explanation obviously is valid, only if the ECE-producing machines can be placed throughout the cosmos in a period of time which is short compared to the transit time of light. What may not be immediately apparent, however, is that the early period of a proto-galaxy, with tremendous light-flux from galaxy-wide, but primarily core-interface, annihilations, should also have a *super-abundance of neutrinos.*

This neutrino super-abundance would cause the proto-galaxy's neutrino-absorption redshift to increase greatly, *thereby giving a false clue to the galaxy's distance*. Perhaps this high neutrino flux is the explanation for some of the recent observations, where strange galaxies called "blue fuzzies" are seen to have redshifts from 0.7 to 3, and quasars are seen at redshifts to 4.4. We should also reflect that the merging of a matter galaxy with an antimatter galaxy (something which might result from an irregular placement of ECE-generating machines) would produce both exceptional brightness, and a false clue of distance, since a superabundance of neutrinos would also be a part of this scenario. Notice that the Big Bang can't provide a rationale for adjacent galaxies being matter and

antimatter, because this battle for supremacy is postulated to have taken place at a very early and compact stage of the expansion of the universe.

A Few Loose Ends

In approaching the end of this book, I hope you are feeling more ambivalent about absolute space vs. relative space. You will have noticed by now that IPP supports, and even explains, Einstein's General Theory of Gravitation, by showing the various ways in which matter and energy warp space, and by offering a plausible microcosmic concept of gravity (spheroidal distortion of ECEs), and a visualizable concept for a black hole (conversion of a region of space into the body-centered cubic lattice form). Also, you will recall that my theory has been able to illuminate two of the proven, but baffling, predictions of Special Relativity — the *equivalence of mass and energy* (by showing that both equate to lattice "shrinkage), and *relativistic mass increases* (the progressive fracturing of the lattice by the lattice density oscillations associated with momentum to produce crowds of "ghost" electron/positron pairs, which tag-along with the particle, increasing its size and mass, but not its charge).

You will also know, from reading Einstein's original paper on relativity, "On the Electrodynamics of Moving Bodies", that his two fundamental postulates were that "no experiment of any sort can detect absolute rest, or uniform motion", and, "no matter how a light wave is started, it is carried by the ether at the standard speed which waves are transmitted therein". He called these two postulates, "only apparently irreconcilable", and went on to show that they *could* be reconciled by abandoning Newton's postulate of "absolute time". Clearly, the second of these is in full agreement with the premise of "absolute space"; only the first seems at variance. Yet, even this can, perhaps, be reconciled with absolute space, if we examine the atomic basis for Einstein's clock variations:

IPP lets us see that, when an atomic system moves through absolute space, its energy levels will not be constant, but will vary systematically, not only with the atom's speed through the space lattice, but also with the angle between its momentum vector and the trajectory of an emitted photon. These same variations apply, in a perfectly reciprocal manner to a moving atom *absorbing* a photon. Herein lies a possible explanation for our inability to determine our velocity through absolute space by Michelson-type apparatus.

It may be worth pointing out that Einstein's first postulate, "no experiment of any sort...", is very possibly wrong. Precise satellite measurements of the directional uniformity of the background microwave radiation have revealed systematic variations in the black-body temperature (i.e. redshift), which allow one to infer that our solar system is moving relative to this background radiation "source" (current estimate: about 370 km/sec). If we accept my recombining void-pair explanation for this background microwave radiation, and if we assume that the ECEs of the space lattice are in contact, and if they are no longer involved in gross movements, and if the background electron neutrinos have acquired completely random motions, then (if you are comfortable with all these "ifs") we can assert that the background microwave radiation is a valid frame of reference of absolute space, and conclude that Einstein may not have made the right inference.