

The following is an excerpt from my homepage, www.sittampalam.net

But, first, the answer to your likely first question,
“BASICALLY, WHAT HAS MADE IT ALL TO CONVERGE NOW TO A SINGLE – AND THAT, TOO, A PURELY CLASSICAL MECHANICAL – THEORY?”

In a nutshell:

Mass and energy are not only equivalent but the two are fundamentally one and the same. We term this singular concept – mass-energy. The atom (or molecule) is thus the condensed form of mass-energy (vibrant at sub-c speeds); and electromagnetic radiation the evaporated form (vibrant at escape speed c).

The space and time of the Cosmic Background Radiation (CBR) serve us – in effect – as absolute space and absolute time, respectively. Thus, matter and vacuum alike, our entire observable universe is a voidless and seamless single continuum in vibrant mass-energy featured in an absolute (three-dimensional) space frame in absolute (one-dimensional) time.

The natural vibration of the atom at any given level is the recoil effect of net condensation (inhalation) followed by net evaporation (exhalation) of mass-energy over a cycle at that level. THE ATOM IS THUS A BREATHING ENTITY even in its so-called ground state. And the breathings at the various atomic levels (and corresponding frequencies) form the springboard of quantum mechanics.

Electromagnetic and nuclear forces are thus the consequence of the breathing of the atomic constituents, electrons and nucleons (attracting during influx and repelling over efflux, making Coulomb charges redundant); and harmony in such breathing among subatomic and atomic particles is fundamental to all physical (and chemical) interactions in nature, with the CBR providing the overall confining, or gravitational, effect on atoms.

All the fundamental forces of nature thus become accounted for (in fact, all forces being effected *solely* by the photon momentum, at the various wavelengths, none can be deemed unique, or “fundamental”), with such simple explanations readily following for all of the other physical phenomena in nature.

Typically, the breathing exchanges occur with net effect around the equator as well as at the poles of the basic proton and electron. Irrespective of the subatomic particle, the equatorial exhalation waxes the spin, from a nonvanishing seminal spin, to $\hbar = h/2\pi$, over a half cycle (where h is Planck’s constant); which spin quantum, \hbar , then drops back over the inhalation half cycle, to give the particle the statistical and characteristic half-spin, $\hbar/2$, over the cycle – now derivable from first principles.

The equatorial exchanges underlie also the electrical effect, while the polar exchanges are indeed the magnetic flux. Protons and electrons are thus the primary magnetic dipoles, with polar exhalation at the north and inhalation at the south. (And, since breathing in and breathing out are complementary, where one can never occur without the other, the magnetic monopole is a physical nonentity!) Hence, it is spin and spin alone of the proton or electron that remains an absolute constant for the particle under any environment and not any “charge” on the particle.

Not surprisingly, there is one and only one fundamental particle required for physical analysis in this all-embracing theory. Thus, whittled down to the ideal and smallest quantum detectable, it is – the per-cycle quantum of the photon. It is given due recognition and named here the RADIATON (note spelling!). Hence, analytically, radiatons uniquely constitute all that is nature. Thus, for example, the classical mass of a body or energy of a photon would simply be its (dimensionless) radiaton number.

Further, only one new entity is introduced (and many old ones made redundant) in this final concept. It is the COSMIC CORE, the largest mass-energy quantum in observable space – where Cosmic Cores dot our universe like atomic nuclei do in a body of matter. [Note on “our universe”: With distance from us, the redshift of cosmic bodies would merge with the CBR; thus, beyond a critical distance and (corresponding) time, no objects at all would be discernible; and, being beyond our observation, they also remove themselves outside the scope of our physics and our universe; the cosmological redshift, apart from any Doppler shift, being due simply to intrinsic mass-energy loss of the photon packet by recoil action *every time it accelerates laterally* in asymmetric ambient fields en route while maintaining a constant line speed (c) through the vacuum mass-energy field; photons, non-breathing as they are, never recouping lost mass-energy unlike breathing atoms do (by breathing in more mass-energy than breathing out over a cycle; and vice versa when losing mass-energy).]

Finally, two and only two laws are assumed a priori across the entire realm of physics. They are (corresponding to the first law of thermodynamics) the conservation of mass-energy and (corresponding to the second law of thermodynamics) the conservation of its asymmetry, or handedness, of motion (a nonzero net linear momentum coupled with a nonzero net spin). [Note: The radiaton is the classic perfectly elastic particle where mass and energy are intrinsic (nontransferable) and momentum and momentum alone is transferred in encounters between such indefatigable particles. The radiaton is thus the very embodiment of the first law; and radiatons collectively manifest the second law (wherein may well lie the key to biology and to the mind itself); the second law being more evident in the perpetual nonzero net linear and spin motions of the basic proton and electron.].

Now, with this framework in perspective, let us remove our blinkers, take a step back and behold that complete and final picture piecing more together, with our increasing (and verified!) hard data, right here in these web pages.