BOOK REVIEW

ÆTHER SCIENCE PAPERS by Harold Aspden

Alvin Miller, "The Æther Revival of Harold Aspden," book review: Æther Science Papers, Harold Aspden, 168 pages, 1996, Sabberton Publications, P.O. Box 35, Southampton S016 7RB, England, US\$25 postpaid.

Publication of this book substantiates the existence of a movement to take the concept of the æther seriously. A plethora of models are already available, whether home brew, quasi-academic or academic. A couple of samples: a Dirac Madelung fluid with spinning tops; empty set (vacuum) pixel space associated with localized vortex elements (Lazarus in Cold Fusion, #21); ticking cellular automata with pulsating toroidal spheres or annular wave packets packed linearly with spin traverse polarization. These are hidden variable theories that postulate vortex structures (harmonic oscillators, soliton lumps, topological kinks, vortex sponges, hollow spiral filaments, etc.) situated on a typically cubic lattice where adjacent neighbors rotate/oscillate in anti-ferromagnetic-type order (opposite).

The close consensus here is remarkable, but is explained in a paper by sociologist of science Shanks, "Stochastic Electrodynamics and Counter-Revolutionary Physics" collected in the Scientific Method by Snyder. Stochastic electrodynamics (Marshall, Barut, Boyer) is one variant æther theory. The operative word is "revival." This is conservative dissident physics with the avowed objective of rolling back the reigning Einstein-Heisenberg axis and replacing it, as far as possible, by dusted off classical æther circa 1905, as represented by, for example, Larmor, Bjerknes or Korn.

Actually, Einstein was pro hidden variable and quarreled with quantum physics (EPRpaper, 1935). Based on this work, Bell later proved that any hidden variable theory must be nonlocal, a fact claimed to bury hidden variables. To the contrary, (weak) non-locality has always been a feature of æther models, with the proviso that no superluminal energy (signals) or superluminal matter transmission takes place. This is expressed variously as: phase locking (Aspden), mutual correlated synchro formation, organized collective guided motion with long term order, persistent correlation of passive information or contextual, unfragmented implicit order.

Next, we show how interactions are treated in the models. The æther is a Bose-Einstein condensate fluid so that, with respect to translation, it effectively acts as a super-cooled superfluid. But theæther behaves like an elastic solid that deforms like a jelly when subject to constant force or shatters for sharp forces. These torsions or stress/strains then give rise to particles (vortex desynchronization) and the various gauge fields. Further, a mechanism is needed to produce vacuum fluctuations, Brownian or stochastic type jitter. An appeal can be made to classical statistical mechanics as a source for this random motion, although the mixed state correlations that occur there are claimed to be already macroscopic quantum effects. In Harold Aspden's book, these elements are assembled to form the best model in the æther resurgence so far. The book collects 14 of his articles over the past decade with a useful 62 page preface. His model is fairly sketchy, firstly because it is spread throughout the papers and varies in expression as the years go by. Another likely reason is that the æther concept is so loaded, as Aspden puts it, that he used a certain amount of camouflage to get published. But he does, indeed, propose a cubic lattice, where Planck's constant, h, gives the lattice spacing and h is not permitted to have any further metaphysical significance. Quantum numbers arise only because charge is integral (quantal) and conserved. He characterizes the æther lattice as a solid piece of iron to emphasize its crystalline solid aspect. He situates subquantal harmonic oscillators labeled quons on the lattice in antiphase configuration, Aspden's oscillators can process and can produce cavity wave resonances in the cube volume.

He proceeds in several articles to determine the mass spectra of elementary particles and other particle constants with his method of prime number harmonic wave resonance. This requires only "back of the envelope calculations" or "school level math," where he is at pains to deny that he is doing numerology. The method is analogous to the quantum field treatment of particle self-interaction or self-interference with the bare/naked particle being dressed/given fur by its cloud of surrounding virtual photons. Aspden proposes that prime ratios derived from specific combinations of the swarming virtual particles govern the oscillations and fix the constants. The numbers are significantly more precise than the results from the mathematically tortuous field theory. Perhaps these primes are the long sought ancient pythagorean harmony of the spheres he discusses.

Inertia andgravition, along with the other gauge forces, arise from the electrodynamic accelerated charged particle motion in conjunction with æther jitter. Puthoff proposes a similar mechanism in the zero-point energy theory. In agreement with stochastic electrodynamics, Aspden notes that the dielectric displacement current and magnetic induction are vacuum effects. Maxwell was historically inspired to posit the displacement current by his study of his cellular honeycomb æther model. Juxtaposed reference frames in motion with respect to the charges are integral to the production of jitter and gravitational forces in Aspden's model.

In the preface, Aspden properly complains that his work has been ignored, which is one of the reasons he is now doing primarily experimental work. He states that the two most likely routes to tapping the æther are ferromagnetism and his concept of æther spin/vortex shedding. In collaboration, he has constructed permanent magnet motors, plasma tubes and other free-energy devices and has had a number of patents granted on these devices with further patent applications filed. In a 1989 paper he postulates that æther spin can generate antigravity, possibly being confirmed by Finnish experiments and NASA replication attempts. Mass production of devices that "violate" conservation of energy (unless the æther contribution is included) should indeed focus attention on his theoretical work.

From a broader perspective, Aspden points out that our greed and exploitation have brought us to the brink of an apocalyptic "catastrophe sufficient to terminate human and animal life on earth." In this context, the diligent search for free-energy becomes imperative, and success will bring the power of the gods – a loaded gun is being handed to an Idiot Child (humanity). We can use it to speed up our hellbent race to oblivion and go out with a bang, or use it to heal the planet and ourselves.

Æther Science Papers is an oversize book with sturdy, plasticized covers. It has a complete bibliography but no index. The articles retain their original pagination, making reference to individual passages a bother. Aspden crosses swords with modern physics on a number of points. No one currently working in field theory would dispute that a properly constructed hidden variable theory can match them in substance. Aspden's model looks to be closest to this goal so far, and it uses comparatively trivial mathematics. He recognizes the necessity for nonlocality and reference frames and other features not normally discussed. This book is guite a bargain and the only verdict can be: both thumbs up!