

# Ben Franklin, America's First Physicist

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Benjamin Franklin, American Genius

This is the basic physics discovery of Ben Franklin's oil calming the turbulent waters presented in this book for the first time. Here is how I also smooth Hal Puthoff's choppy electromagnetic zero point waves into emergent gravity.

A Letter from Benjamin Franklin to William Brownrigg, 1773

"Dear Sir: I thank you for the remarks of your learned friend at Carlisle. I had, when a youth, read and smiled at Pliny's account of a practice among the seamen of his time, to still the waves in a storm by pouring oil into the sea; which he mentions as well as the use made of oil by the divers; but the stilling a tempest by throwing vinegar into the air had escaped me. I think with your friend that it has been of late too much the mode to slight the learning of the ancients. The learned, too, are apt to slight too much the knowledge of the vulgar. The cooling by evaporation was long an instance of the latter. The art of smoothing the waves by oil is an instance of both.

Perhaps you may not dislike to have an account of all I have heard, and learnt, and done in this way. Take it if you please as follows:"

<http://jcbmac.chem.brown.edu/baird/Chem22I/Avogadro/BenFranklin.html>

On Sep 26, 2004, at 11:47 AM, Jack Sarfatti wrote:

Furthermore, the issue of the “flow of time”, i.e. “Arrow of Time” is not found directly in the formalism of space–time that is a “block universe”. One must look elsewhere to the boundary conditions at the Big Bang to explain why the irreversibility of the Second Law of Thermodynamics points the same way as the expanding 3D space of our local Hubble horizoned universe. Roger Penrose deals with this problem extensively, e.g. his online lecture “Fashion, Faith and Fantasy” <http://www.princeton.edu/WebMedia/lectures/>

In my theory, the low initial entropy of the early post–inflationary universe is explained by the collapse of the volume of phase space of the pre–inflationary unstable globally flat false vacuum in the formation of the vacuum condensate of primarily bound virtual electron–positron pairs glued together by virtual photon exchange in the battle–tested non–perturbative background–independent BCS manner. The false vacuum prior to inflation may itself emerge from a spin foam, but one without emergent gravity that only comes after the formation of the vacuum condensate whose phase variations give Einstein’s metric field. There is no inertia without gravity and that is why the pre–inflationary globally flat false vacuum has only off–mass–shell massless charges. When the vacuum coherence vanishes inside a vortex core, for example, you do not get a “nonlinear graviton” (Roger Penrose) quantum gravity foam in my model. Therefore, you should not see any quantum gravity foam fluctuations in high energy gamma rays from way back in time if my model is correct. Einstein’s metric field is a smooth c–number ODLRO field from the vacuum coherence. Trying to quantize the metric field top–down is redundant as it is an emergent bottom–up “More is different” macro–quantum phenomenon. There is no such thing as “classical space–time”. What we have is “macro–quantum space–time.” However, just as a superfluid has “normal fluid” you can do perturbation theory with a spin 2 quantum field on the smooth curved space–time background ODLRO metric field. When the vacuum coherence vanishes you then get the “linear graviton” spin 2 quantum tensor field on the flat Minkowski background.