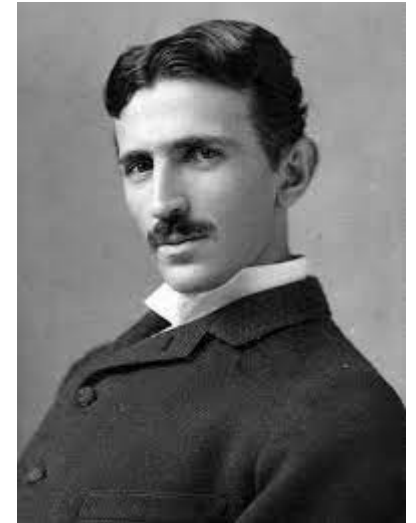
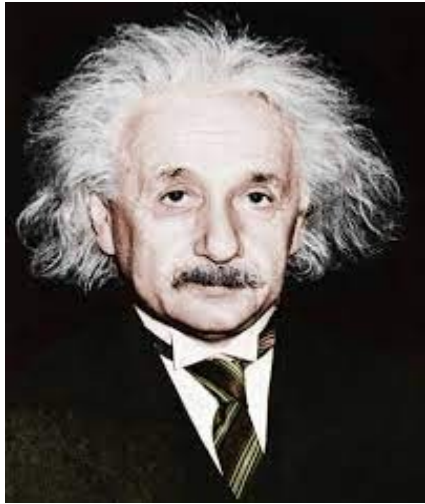
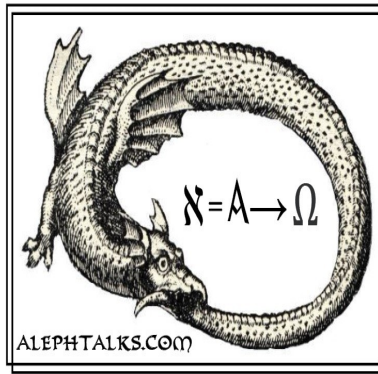


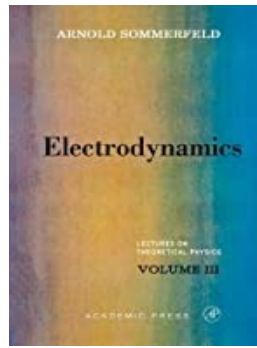


Mysticism
Where Science, Art
and Religion Meet
Etheric Electromagnetism
Albert Einstein, Nikola Tesla,
Elie Cartan, Gabriel Kron



Etheric Electromagnetism

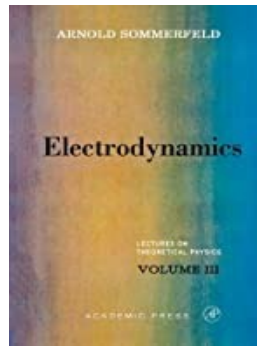
A Road Not Taken



- Light was postulated to be particles called corpuscles by Isaac Newton in **Optiks** because waves do not travel in straight lines (longitudinal waves)
- Light obeyed diffraction, interference and polarization so Huygens-Young-Fresnel wave theory was adopted (transverse waves)
- Albert Einstein postulated light consisted to discrete particles called photons that hopped from quantized space compartment to quantized space compartment as light propagated
- The quantized space compartments that carry the photons form the ether for electromagnetism

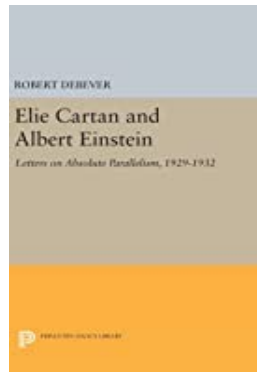
Etheric Electromagnetism

A Road Not Taken



- The equations for an incompressible perfect (frictionless) fluid mechanics are identical in form to the equations of electromagnetism but with additional terms to reflect the density of the fluid (Sommerfeld)
- If the equations of electromagnetism are extended to include terms for an incompressible perfect fluid, the ether, and a perturbation analysis is carried out then
 - The zeroth order term results in Maxwell's equations in free space
 - The first and second order terms result in the strong force and weak force and gravity (the density of the ether)

Electromagnetism Extended by Differential Geometry



Lorenz metric leads to Maxwell's equations for electromagnetism

With curvature, spin and gauge transformations, and torsion of spacetime included in differential geometry for electromagnetism, etheric terms arise in electromagnetism that lead to strong force, weak force, and gravity, and spacetime coupling

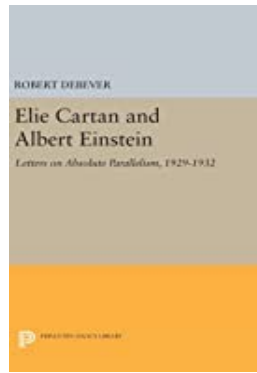
Tesla probably arrived at this in 1890s (Egg of Columbus at Chicago Columbian Exposition in 1893)

<https://www.youtube.com/watch?v=KomclPrSJko>

Einstein and Cartan arrived at this in 1922, letters from 1929-1932

Kron used this in 1930s for design of electric motors

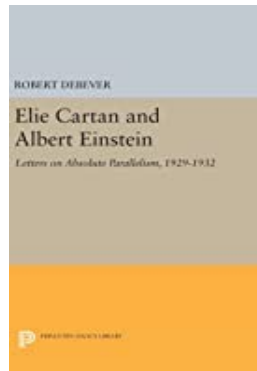
Electromagnetism Extended by Differential Geometry



Electromagnetism can be extended into compactified dimensions that are Calabi-Yau manifolds. This results in tachyons that move far faster than the speed of light.

In one version of string theory known as the topological B-model, the D-branes are complex submanifolds of certain six-dimensional shapes called Calabi–Yau manifolds, together with additional data that arise physically from having charges at the endpoints of strings. In mathematical language, the category having these branes as its objects is known as the derived category of coherent sheaves on the Calabi–Yau.

Electromagnetism Extended by Differential Geometry



In another version of string theory called the topological A-model, the D-branes can again be viewed as submanifolds of a Calabi–Yau manifold. Roughly speaking, they are what mathematicians call special Lagrangian submanifolds. This means among other things that they have half the dimension of the space in which they sit, and they are length-, area-, or volume-minimizing. The category having these branes as its objects is called the **Fukaya category**.

The derived category of coherent sheaves is constructed using tools from complex geometry, a branch of mathematics that describes geometric curves in algebraic terms. On the other hand, the **Fukaya category** is constructed using symplectic geometry, a branch of mathematics that arose from studies of classical physics.