Gravimagnetic C^3 & Boundary of a boundary vanishes

Source: http://sci.tech−archive.net/Archive/sci.astro/2004−12/2206.html

---

From: Jack Sarfatti (*sarfatti_at_pacbell.net*)
Date: 12/30/04

Date: Thu, 30 Dec 2004 20:29:34 GMT

"The boundary of a boundary vanishes." John A. Wheeler

Metric Engineering Investigations 1.7
Ray Chiao's Gravimagnetic Superconducting Radio Submarine Warfare?

On Dec 30, 2004, at 9:33 AM, RKiehn2352@aol.com wrote:

"Jack
Check out V. Fock on "harmonic coordinates" in his book Space Time and Gravity, re' the problem of fields vanishing at infinity. Also see
Chapter 12 from vol4 Plasmas and non−Equilibrium Electrodynamics.
http://www22.pair.com/csdc/download/plasmas69d.pdf

Also note that a p−form decomposes into 3 parts:

(an exact part) + (a closed part, but not exact) + (non exact non closed part)."

Yes, thanks. I meant the third term in the 1−form connection as the one that gives curvature.

Exact p−form is B = dA

A is a p−1 form

d^2 = 0

Hence dB(exact) = 0

Closed, but not exact p−form is simply

C a p−form where dC(closed but non−exact) = 0

Every exact p−form is a closed p−form but not vice versa.

dD(non exact non closed part) =/= 0

Consider set of cosets of closed p−forms in set of all p−forms as well
as set of cosets of exact closed p−forms in set of all closed p−forms.

That is the quotient sets whose elements are cosets

{p−forms}/{closed p−forms}

and

{closed p−forms}/{exact p−forms}

Similarly for the DUAL c−forms or "chains" where d is replaced by a
boundary operator. The co−forms are integration p−dimensional manifolds
with multiple connectivity I think (from memory of Wheeler's book
"Geometrodynamics") given by the dimension of

Hp = dim{closed p−coforms}/{exact p−coforms} = p^th Betti number of
"wormholes" on p−hypersurface.

Hodge Integral d(p−form)(p+1 manifold) = Integral(p−form)boundary(p+1
manifold)

This includes fundamental theorem of integral calculus Stokes theorem
and Gauss's theorem as special cases.

Also the co−forms (chains) have a natural group composition and can be
Reggeized to a linear superposition of topological graph simplices with
p + 1 vertices for a p co−form.

For example for

{p−closed coforms}/{exact p−coforms} take any one element of {p−closed
coforms} and "multiply" it by all elements of {exact p−coforms}, this is
a coset. If there is a group structure and if the left cosets = right
cosets and if the cosets do not overlap i.e. all cosets have no elements
in common, then {exact p−coforms} is a normal subgroup H of the group G
of {closed p−coforms}.

Here a closed p co−form has no boundary like the surface of a p = 2
sphere or the surface of a sphere with any number of wormhole handles
given by the p = 2 Betti number. The exact p−coforms are boundaries of
p+1 coforms.

All of the closed local GCT "classical" tensor field (GR & Maxwell for
sure, also Yang−Mills) equations are expressed by John A. Wheeler as

"The boundary of a boundary vanishes."

"The last part gives the fields from the potentials. F=dA The middle part give topological defects (BA effect,etc.)"

Also non−dynamical Berry phase in addition to dynamical Bohm−Aharonov−Josephson phase? Since the classical curved fabric of spacetime emerges from the local single−valued macro−quantum coherent Goldstone phase rigid Higgs Vacuum Coherence, all of these phases will play a role in space physics on a large−scale, e.g. Pioneer Anomaly, Galactic Halo all dark energy/matter topological defects.

Ah! Thanks. That would give "curvature without curvature" like in the Vilenken−Taub solution? Also the hedgehog dark energy anomaly explaining the NASA Pioneer a_g = − cH constant acceleration between 2 spherical boundaries concentric with Sun, first boundary at 20AU. If this model is correct ALL stars should have this property that would be related to the birth of stars in the first place. Similar idea for Galactic Halo birth of galaxies. These defect seeds from pre −> post inflation vacuum breaking of translational symmetry.

"and non−trivial gauges. The exact part yields trivial gauges."

Which would be perhaps what Z is looking for in his "coordinate" part. The GCT of GR are derivative from underlying local gauge transformations of the tetrads.