## The TOPOLOGY of THE OPEN COSMOS:

The Cosmos cannot both be Closed or have a Closed Perimeter AND be Infinite inside.

PROOF: If the Cosmos has a Closed Perimeter, then the Inside would be BOUND, and if the inside is Bound then the INSIDE is NOT INFINITE. Further: Thus the Contrapositive of this holds.

COROLLARY: Therefore, If the Cosmos is Infinite inside then there must be at least one Element connected to the Outside, and the Cosmos is therefore Open in at least one element if Infinite.

Further, If the Cosmos is Infinite, then this Infinity MUST Include both the Binary ON to OFF and OFF to ON Keys, and thus include the whole (Binary) Digital Space too.

PROOF: If the Cosmos did not include the Digital Space and the ON OFF Keys (the Connection/ Disconnection Keys) THEN the cosmos would not be Infinite. Thus: the Contrapositive of this holds.

**COROLLARY**: If the Cosmos can be turned off then it is not Infinite. But if the Cosmos cannot be turned off then it is also Not infinite (because infinite must include being off as well as on)

Therefore the Cosmos is both OPEN and CLOSEABLE.

## THIS IS A PARADOX.

Then, being OPEN in at least one respect is the way out of this Paradox.

Thus: If the COSMOS is Both CONTINUOUS AND DIGITAL (and CANNOT be only these two if the cosmos is infinite and thus open outside of these boundaries as well),

THEN:

At least one part of the space is Not Binary, so that at least one part is either Continuous or simply non-binary.

AND:

At least one part of the space is Not Continuous, so that at least one part is either Digital and Boolean and therefore Binary, or simply not Continuous.

And all of these Spaces are both connected, and disconnect-able too. (and CANNOT be only these two if the cosmos is infinite and thus open outside of these boundaries as well)

I propose Quantum Freedom happens in this space.

This is the Topology of the Open Cosmos.