SUPERCOLLIDER

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<u>Abstract</u>

The Large Hadron Collider (LHC) is the world's largest and most powerful particle accelerator. The LHC consists of a 27-kilometre <u>ring</u> of superconducting magnets with a number of accelerating structures to boost the energy of the particles along the way. Inside the accelerator, two high-energy particle beams travel at close to the speed of light before they are made to collide. The beams travel in opposite directions in separate beam pipes – two tubes kept at ultrahigh vacuum. Note that all experiments in that collider <u>are subject to gravity</u> and thereby associated defects in superconducting.

Our concept device and technology enable to create a supercollider in NextGen patricides engineering.

Technology

In contrast to LHS ring collider, our supercollider consists of superimposed tori in a pyramid-like structure (**fig. 1, 2, 3**) where anti--gravity is achieved due to upward acceleration of particles in longitudinal axis via spiral-like propagation of energy within that structure (**fig. 1 (a) and 4**).

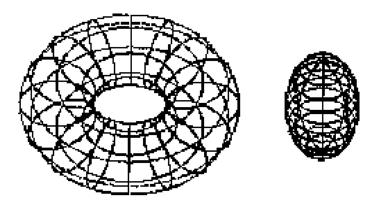




Fig. 1 (a)

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Fig. 2

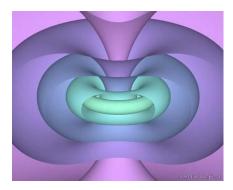
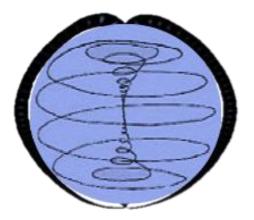


Fig. 3





Note that gravity acts on earth not upwards but downwards that enables a helicopter, for example, to lift-off due to Coriolis force. So due to the beam of particles <u>spiraling</u> <u>upwards</u> in our device and not circuited horizontally as in the LHS artificial ring, antigravity is achieved in our supercollider where particles collide and generate a gravitational wave (as in the merger of two black holes) to produce a **graviton** as the force carrier that mediates gravity.

"It is expected to be massless (because the gravitational force appears to have unlimited range) and must be a spin-2 boson. It can be shown that any massless spin-2 field would give rise to a force indistinguishable from gravitation, because a massless spin-2 field must couple to (interact with) the stress–energy tensor in the same way that the gravitational field does; therefore if a massless spin-2 particle were ever discovered, it would be likely to be the **graviton** without further distinction from other massless spin-2 particles. Such a discovery would unite quantum theory with gravity."

<u>Ref.</u> *Misner, C. W.; Thorne, K. S.; Wheeler, J. A. (1973). Gravitation. W. H. Freeman. ISBN 0-7167-0344-0.*

Lightman, A. P.; Press, W. H.; Price, R. H.; Teukolsky, S. A. (1975). "Problem 12.16". Problem book in Relativity and Gravitation. Princeton University Press. ISBN 0-691-08162-X.

--3--