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Paper Title ***DYNAMIC INTERACTION CONFINEMENT***

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It is an interesting article on nuclear fusion, trying to explain an unexplained anomaly observed in the plasma circular movement of Tokamak nuclear reactors, under the assumptions of the Theory of Dynamic Interactions (TDI), developed by the author and not yet proved in the microscopic coupling processes. The initials sections are a clear short review of the current methods and their difficulties for achieving the nuclear fusion developed up to now.

The importance of developing new technologies to obtain energy by means of nuclear fusion procedures is beyond question. There are several different, technically possible models for doing this, though to date none of these has been able to attain an industrial reactor with an end performance greater than unity. We still find ourselves at an initial phase, after many years, as a result of having failed as yet to come up with a commercially productive machine.

Nuclear fusion research has defined a Tokamak prototype reactor based on a fluid conductor, isolated materially in a physical container and confined by means of magnetic fields. In this fluid-plasma, which interacts with magnetic fields, fusion reactions are caused that release energy, while at the same time a quantity of movement and angular momentum is moved or “rotated” and transported.

However, turbulence is caused in these magnetic confinement fusion processes that reduces system efficiency and prevents the obtaining of sufficient net energy from the nuclear reactions.

The paper aims to propose new dynamic hypotheses to enhance our understanding of the behaviour of the plasma in the reactor. In doing so, the author proposes a thorough review of classical dynamics. After over thirty years studying rotational dynamics, the author proposes a new theory of dynamic interactions to better interpret nature in rotation. This new theory has been tested experimentally returning positive results, as ratified by third independent parties.

The author suggests that these new dynamic hypotheses, which we hold applicable to particle systems accelerated by rotation, be used in the interpretation and design of fusion reactors. This proposal could, in addition to magnetic confinement, achieve confinement by simultaneous and compatible dynamic interaction. Accordingly, the author is of the opinion that it would be possible to get better performance and results in the design of fusion reactors by way of simultaneous magnetic and dynamic interaction confinement.

The paper introduces a radical new physical hypothesis generalizing equation, which is proved experimentally by the author for macroscopic bodies in the specific physical process of simultaneous non-coaxial rotation coupling with translation processes in the microscopic physical state. It is assumed by the author that there must be also a similar macroscopic behaviour when a particle has an internal spin which is assimilated to an initial rotation state.

The author supports his hypothesis in the observed plasma spontaneous rotation phenomenon, which is not totally yet explained by the complex gyrokinetic theory.

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