Abstract Submitted
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Checkerboard Theory of the Nucleus. THEODORE LACH — The Checker Board Model (CBM) is a 2D model of the nucleus that proposes that the synchronization of the 2 outer rotating quarks in the nucleons accounts for magnetic moment of the nucleons and that the magnetic flux from the nucleons couples (weaves) into the 2D checker board array structures and this magnetic coupling in addition to electrostatic forces of the rotating and stationary quarks accounts for the apparent strong nuclear force. The symmetry of the He nucleus helps explain why this 2D structure is so stable. This model explain the mass of the proton and neutron, along with their magnetic moments and their absolute and relative sizes in terms of the above structure and predict the masses of two newly proposed quarks [(1)]: the "up" and the "dn" quarks. Since the masses of the "up" and "dn" quark determined by the CBM (237.31 MeV and 42.392 MeV respectively) did not fit within the standard model as candidates for u and d, a new model (New Physics) had to be invented. This new particle physics model predicts that nature has 5 generations not 3. (1). T.M. Lach, Checkerboard Structure of the Nucleus, Infinite Energy, Vol. 5, issue 30, (2000). (2). T.M. Lach, Masses of the Sub-Nuclear Particles, nucl-th/0008026, @http://xxx.lanl.gov/

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