A MERGER BETWEEN THE QUANTUM PHYSICS OF THE STANDARD MODEL AND THE PERIODIC TABLE

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The mathematics of quantum physics from the standard model using groups U(1)xSU(2)xSU(3) and the Pauli principle produces two sets of time independent quantum states $n(n+1)$ and $n(n-1)$, where n is the principal quantum number. Oscillations between these states results in a one to one mapping with the Roberts-Janet nuclear periodic table by interpretation of $n>0$ for condensed matter and $n<0$ for plasma prior to fusion. The mechanism provides a framework for periodic tables for every supernova by excluding mass number. A discussion of the occupation of s, p, d, f orbitals follows in which it is suggested that the Roberts-Janet table is 5-Dimensional.

Biography

John O Roberts graduated in 1969 with a BSc (Hons) in Physics from The University of Liverpool. He has been an Open University Tutor for 30 years and a private tutor of Maths and Science. He is the author of Those Infinities and the Periodic Table (ISBN 978-0-9934667-3-1) He has had published an article Proposed Link between the Periodic Table and the Standard Model, July 2017 in the journal Materials Science and Engineering and another article Implications of the Link between the Periodic Table and the Standard Model March 2018 in the same journal.

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