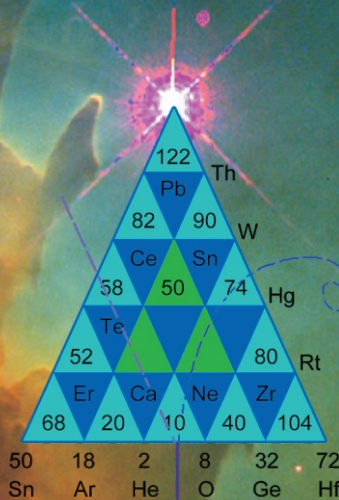


MARIUS ARGHIRESCU

THE COLD GENESIS of MATTER and FIELDS

A Pre-Quantum Theory of Primordial Matter



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The Cold Genesis of Matter and Fields

*A Pre-Quantum Theory
of Primordial Matter*

Marius Arghirescu

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Abstract

The book is based on a new theory of the author, which argues the possibility of a cold genesis of particles and of fundamental fields, in the Protouniverse's period, by primordial gravistars, using the concept of sub-quantum fluid, explaining the elementary particles and the fundamental fields cold genesis with ideal unitary pre-quantum particle models of simple or composite chiral soliton type, formed at $T \rightarrow 0K$ from confined primordial "dark energy" in a cascade vortex process, according to the ideal fluids mechanics applied to the particle fields and soliton vortex. The electro-magnetic and the gravito-static and gravito-dynamic fields are described by an unitary model of charge and by an unitary field equation.

The exponential form of the nuclear potential is theoretically found through a mesonic and baryonic model of degenerate electrons and an Eulerian expression, as being generated by the vortexial dynamic pressure inside the nucleonic quantum volume. The weak force is explained by a dynamid model of neutron with intrinsic vibration and the particle disintegration is explained asa result of particles intrinsic vibration generated by vibrations of current mass quarksformed as B-E condensate cluster of quasi-electrons, by gammons confining in very strong magnetic field of a gravistar or of a magnetar star.

For a phenomenological model of cosmic expansion, by the dependency of the G-gravitation constant on the etheronic local density, the physical cause of the cosmic expansion results as a force of pressure difference of etheronic winds coming from the ultrahot stellary structures having an pulsatory antigravitic charge given by destroyed particles, the speed of expansion resulting with a semi-sinusoidal variation.

The theory can explain also phenomenological some known specific effects, like the magneto-electric and the magneto-mechanic effects, (chpt.2).

Contents

Abstract	III
Chapter 1 A Cold Genesis Theory of Fields and Particles.....	1
1.1 Introduction	3
1.2 Considerations Concerning the Quantum and Subquantum Medium	6
1.3 The Photon.....	14
1.4 The Fermionic Spin	16
1.5 The Charge Model.....	18
1.5.1 The (Electro) Static Type Interaction between Charges	19
1.5.2 The Interaction between Charges through Magnetic Type Field	21
1.6 The Gravitic Interaction.....	24
1.7 A galileian Relativist Expression of the Particles Acceleration	29
1.8 The Soliton Electron Model	31
1.8.1 The Electron Model.....	31
1.8.2 The Electron Entropy and Stability	40
1.8.3 The Interaction between Vectorial Photons and the Elementary Charges	44
1.8.4 The Magnetic Field and the Magnetic Interaction	45
1.8.5 The Magneto-Electric Interaction (the Lorentz Force)	49
1.8.6 The Emission of Electromagnetic and of Scalar Radiation.....	51
1.8.7 The Electron's Cold Genesis.....	54
1.9 The Cold Genesis of Particles in the Protouniverse's Period	56
1.10 The Nucleons and the Nuclear Forces	58
1.10.1 The Proton Model	59
1.10.2 The Forming of Electronic Orbitals in Atoms	63
1.10.3 The Nuclear Force.....	67
1.10.4 The Neutron Model.....	70
1.10.5 The Deuteron Model and the Deuteron's Self-Resonance.....	72

1.11	The Atomic Nucleus; A Quasicrystal Nuclear Model	79
1.12	The Beta Disintegration	83
1.13	The Elementary Particles; The Mesons and the Baryons	89
1.14	The Strong Interaction of Quarks and the Proton Disintegration	97
1.15	The Particles Disintegration	100
1.16	Implications of the Theory in Cosmology	105
1.16.1	A Hypothesis Concerning the Cause of the Cosmic Expansion	107
1.16.2	A Phenomenological Model of the Cosmic Expansion	112
1.16.3	Gravistars as Primordial Genesic Structures of the Protouniverse	123
1.16.4	The “Dark Matter” as Bosons of the Polarised Quantum Vacuum	133
1.16.5	The Hard Gamma-rays Emission of Pulsars	136
1.17	Conclusions	138

Chapter 2 Field Effects Explaining and Proposed Experiments..... 153

2.1	The ($e^- - e^+$) Pairs Forming by Quantum Vacuum Energy	155
2.2	The Superfluidity of Helium.....	156
2.3	The Einsteinian Relativity	157
2.4	Magneto-Electric and Magneto-Mechanic Effects	162
2.4.1	The Einstein – De Haas Effect and the Barnett Effect	163
2.4.2	The Joffe-Kapitza Effect.....	166
2.4.3	The Aharonov-B öhm Effect.....	167
2.4.4	The Hooper – Monstein Effect.....	171
2.4.5	The Faraday Paradoxe.....	173
2.4.6	The Superconductivity; The London Equations.....	174
2.4.7	The Ball Lightning	177
2.4.8	Conclusions	179
2.5	Biophysical Fenomena	180
2.5.1	The Kervran Effect.....	180
2.5.2	The Biotherapy.....	185
2.6	Particles Negentropy and the Functioning of the “Free Energy” Devices	189
2.7	The Auto-Organizing Tendency of Complex Systems at Macro Scale....	193
2.8	New Proposed Experiments.....	198

2.9 Philosophical Conclusions..... 201

Glossary..... 207

