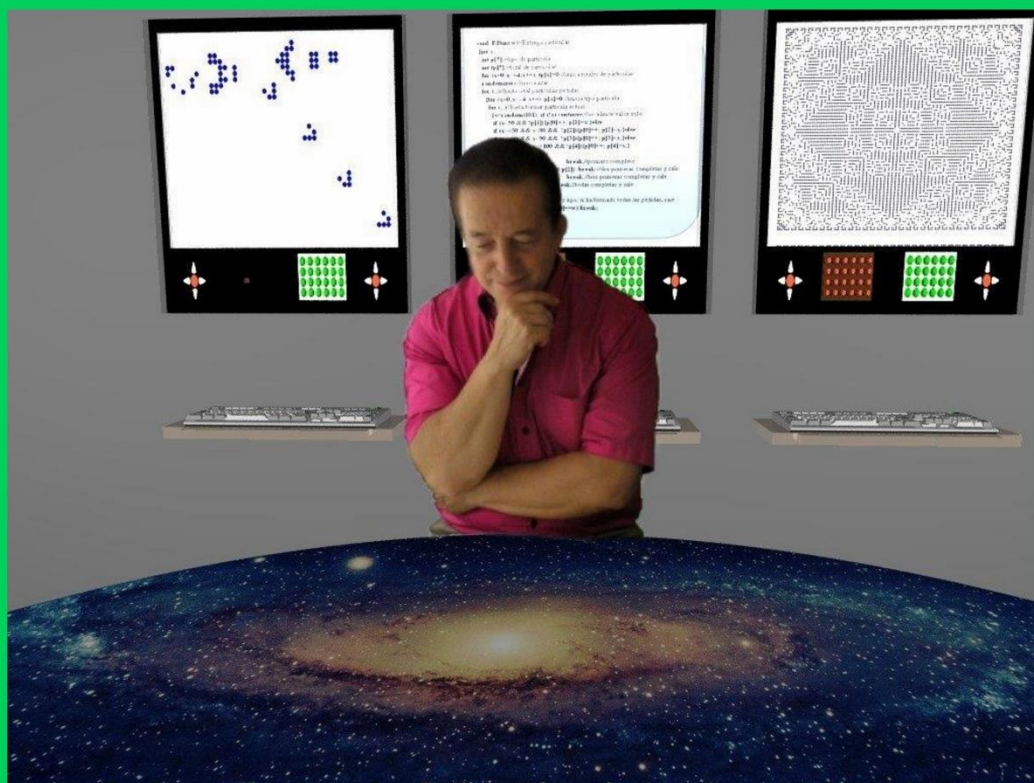


THE STRUCTURE OF REALITY



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CONTENTS	PÁG.
1.- Preface	15
2.- The structure of reality	17
2.1.- The material universe	17
2.1.1.- Contingent	17
2.1.2.- Incomplete: The origin of life	19
2.1.3.- Philosophical/metaphysical conjectures	32
2.1.3.1.- Idealism	32
2.1.3.2.- Platonism	33
2.1.3.3.- Monadology	33
2.1.3.4.- Implicate order	34
2.1.3.5.- Morphic fields	35
2.1.3.6.- Pampsychism	37
The Universe-Information	39
2.2.1.- Characteristics of information	39
2.3.- Information versus matter: Existence versus	42
2.3.1.- What is visualization?	44
2.3.2.- Origin and complexity	47
2.3.2.1.- Properties	50
2.3.2.2.- Subjective materiality	52
2.3.2.3.- Subjective visualization	52
2.3.2.4.- Generative Laws/Rules	53
2.3.2.5.- Multi-relational assemblies	55
2.3.2.6.- Primordial information	55
2.3.2.7.- Incognoscible	55
2.3.2.8.- Conclusion: We are thought	58
3.- Information and generation of universes/visualization	63
3.1.- Incompatibility of visualizations	69
3.1.1.- Size Rule	70
3.1.2.- Radius rule	72
3.2.- Consequences and Extrapolations	73
4.- Visualized Universe	77
4.1.- Formation of Secondary Realities (RS)	79
4.1.1.- Computational Analogy	80
4.1.2.- Experimental Analogy	89
4.1.3.- Ramsey's theory	94
4.2.- Impossibility of knowing the underlying real logic	96
5.- Law of decreasing magnitude (LMD)	101
5.1- Definition	101
5.2.- Logical-mathematical basis	101
5.3.- The LMD in action	103
5.3.1.1.- Value/Gene	103
5.3.1.1.- Fixed Chance	104
5.3.1.2.- Variable Chance	108
5.3.1.3.- Differential Chance	110
5.3.1.4.- Random fixed value	110
5.3.2.- Complete Organism	111
5.3.2.1.- Fixed chance	112

5.3.2.2.- Complete universe	115
5.3.2.3.- Fixed chance	116
5.4.- Structural value of the LMD	117
5.4.1.- Introduction	117
5.4.2.- Radius of action	118
5.4.3.- Entanglement	119
5.4.4.- Formula	120
5.4.5.- Experimental Results	123
5.5.- The LMD as a universal dissipator	128
5.5.1.- Attractors	128
5.5.2.- Chaos theory	128
5.5.3.- General Systems Theory	129
5.5.4.- LMD and chance	129
5.6.- Physico-Metaphysical issues in the light of the LMD	133
5.6.1- Continuous creation	133
5.6.2- Beginning	143
5.6.3.- Infinitude	144
5.6.4.- Eternity	144
5.6.5.- Teleology	144
5.6.6.- Arrow of time	152
5.6.7.- Elementary particles	153
5.6.8.- Science and Science-fiction	158
5.6.8.1.- Time travel	158
5.6.8.2.- Simulated Universes	159
5.7.- LMD and computational analogy	161
6.- LMD and visualization	165
6.1.- Organism value	166
6.2.- Energy contribution	168
6.3.- Creation	177
6.3.1.- Introduction	177
6.3.2.- Multi-relational structure	178
6.3.3.- Annihilation of structures	180
6.3.4.- Elimination and predominance	183
6.3.5.- Implicit laws: gravity and repulsion	193
7.- Internal evolution of the visualized universo	217
7.1.- Introduction	217
7.2.- Experimentation	232
7.3.- Preterite Humanity vs. Modern Humanity	233
7.4.- The problem of technology	248
7.5.- Is technology neutral?	253
7.6.- Technology and psychology	258
7.6.1.- Electronic warfare	260
7.6.2.- Biological warfare	275
7.6.3.- Chemical warfare	283
7.6.4.- Atomic warfare	285
7.6.5.- Atmospheric warfare	285
7.6.6.- Psychic warfare	286
7.6.7.- Food warfare	287
7.6.8.- Economic warfare	294
7.6.9.- Social warfare	300

7.6.10.- Moral warfare	308
7.6.11.- Human being and intelligence quotient (IQ)	308
7.6.12.- Conclusion	310
7.7.- The future of the technological society	312
7.8.- Confronting the technological myth	328
7.8.1.- Viability of the globalist project	328
7.8.2.- The consistent and enduring path	354
7.8.2.1.- Introduction	354
7.8.2.2.- Maintaining the natural human essence	357
7.8.2.3.- Culture versus technology	359
7.8.2.4.- Self-sufficient societies	361
7.8.2.5.- Understandable and Collaborative Technology	365
7.8.2.6.- Non-human concentration: spatial distribution	366
7.8.2.7.-Direct and non-invasive internal economics	373
7.8.2.8.- Limitation of wealth individual/organization	376
8.- Mathematics in the Visualized Universe	381
8.1.- LMD and Collatz Conjecture (CC)	381
8.1.1.- Introduction	381
8.1.2.- Generalization	384
8.1.3.- Multiplicative Factor	385
8.1.3.1.- Axiomatic randomness	385
8.1.3.2.- Potential Equivalence	387
8.1.4.- Additive factor	391
8.1.5.- Logical-mathematical questions	396
8.1.5.1.- Establishing a basis	396
8.1.5.2.- Expression refutation CC	397
8.1.5.3.- Loops	399
8.1.5.3.1.- Test value in the loop	400
8.1.5.3.2.- Value connected to external loop	403
8.1.5.4.4.- Incremental limit	404
8.1.5.5.5.- Conclusion	408
8.2.- About Goldbach's strong conjecture	409
8.3.- About the twin primes conjecture	422
9.- Annexes	427
1.- Experimental Laboratory	427
1.1.- Introduction	427
1.2.- Tab "Parametros"	428
1.2.1.- Genes/Organisms	429
1.2.2.- Elección Azar/Genes/Organismos	432
1.2.3.- Azar diferenciado	435
1.2.4.- Limites/Multiverso/Acerca de....	437
1.2.5.-Influencia externa	438
1.2.6.- Influencia interna	439
1.2.7.- Influencia natural	440
1.2.8.- Energía	441
1.3.- Zona experimental	442
1.4.- Resultados organismos	444
1.5.- Resultados genes	450
1.6.- Fases	453
1.7.- Sincronicidad	454

1.8.- Fluctuación	456
1.9.- Collatz	458
1.10.- Microscopio	461
1.11.- Estructura de la realidad	471
1.12.- Automatas	475
1.13.- Evolución cósmica	481
1.14.- Evolución interna	486
1.14.1.- Evolución interna I	486
1.14.2.- Evolución interna II	489
1.14.3.- Evolución interna III	491
1.14.4.- Evolución interna IV	494
1.14.5.- Evolución interna V	502
1.14.6.- Evolución interna VI	507
1.15.- Goldbach	512
10.- Bibliography	515



1.- PREFACE

This work exposes a conjecture about the ultimate foundation of reality that in principle may seem novel but that really links with a universal knowledge that since ancient times is found in the depths of human cultures.

Therefore, it is proposed to scrutinize the foundations of reality, the deep and final reasons for its existence and functioning. The above does not imply the search for or resolution of the "Theory of Everything" so much touted in recent decades by the scientific world, which would result in the knowledge of the physical mechanism of reality implicit in the materialistic and above all reductionist vision of current thought, but always based on the previous conceptions and theories that would give it support and that it could not refute, at least in its conclusively proven points. The concepts and hypotheses presented in this work move away from the reductionist methodology to be imbricated in the holistic way of vision and understanding of reality, but always admitting and explaining the phenomena that we observe daily or scientifically in the material universe.

Some discoveries or concretions of basic principles will be exposed, true axioms or laws that contain the potentiality to give beginning to different knowledge, and from them to explain and decipher the mechanism of reality or of a substantial part of it.

To this end, these principles will be enunciated starting from the simplest and least contaminated possible basis, pure mathematics, exemplifying the why and how of the deep reason for its operation.

We will travel through the worlds of mathematics, logic, computer science, physics, chemistry, biology, metaphysics, computational simulation, cosmology, social psychology and internal simulation, which will allow us to glimpse the true holistic functioning of reality and its consequences in the universal becoming visualized.

As it is inevitable, in addition to explanatory modes of any hypothesis that we may consider, we will need the necessary tools that will take us step by step through the different experimental approaches; to this end I have designed and programmed an extensive computational laboratory that will serve us as an experimental laboratory and to which we can submit as many experiments or ideas as we may come up with in this study. It can also serve as a basis for other authors to develop their own tools and experimentally corroborate the results presented.

The most important parts of this environment or simply those that we will use in the study of the cases, will be explained and the respective experimental designs will be explained in the different chapters, with complete information of the laboratory in the annexes of this work.