Light, Space, and the Puzzle of Time

- Quantum Light Cosmology [QLC] -

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Biblical oriented creation-theory has meanwhile gained fruitful competitive alternative-paradigms: in *biology* the *basic-type concept is being developed*, and we find promising *flood models* in *historical geology*. The *astronomical and astrophysical framework* seems very insistent for adapting on a Biblical horizon of Heilsgeschichte (Salvation History) of GOD's sovereign acting. Critical reflections on the stand of physical Cosmology show, that neither the fascinating plenty of observational data, nor interpreting theories can reach the origin- and the prime cause-questions (causae primae) the naturalistic way. Theoretical Cosmology must face the fact of 21st century-revolution: *information* turns out to be the leading causal factor not only in technology, but just the like manner in biology and theoretical cosmology. The basic force to rule the things reveals as not physical, but information-like! A cosmological theory claiming explanation power without the information concern has no chance to survive. In spite of the loud voice of some fighting naturalists to explain *all* the used reductive, pure physical way, e.g. via the hot-big-bang-concept, shows as a rearguard compared with the inspiring multidimensional quantum theories, digging on the information bottom. According B.HEIM's quantum-field-theory all entities in the EINSTEIN-space-time reveal as by information caused projection of hyperspace. HEIM goes beyond ST.HAWKINGS naturalism in favor of information causes. Observational astronomy alarms by the detection of light-quantisation. Light makes known the deepest wonder of creation: it mediates not only information, but structures the creation in hyperspace-spheres. Consequently a *Quantum-Light-Cosmology [QLC]* is proposed, which solves the cracking time-horizon-problem: billions of *light-years* vanish in the hyperspace-topology. To hold the Biblical insight in '*this eon',* caused by the initial sintfall-episode and the expected new creation, perpetually embedded in hidden dimensions of hyperspace, may shout one's intellect with joy. QLC startles with its detection of a through-going harmonics key from tiny Planck-strings via particle features, atoms, molecules, gene-hierarchies, star- and galaxy-clusters. The highlight: sober science outdoes naturalism as an intellectual way to grasp creation.

All wisdom comes from the Lord and is with him for ever [Sirach 1,1].

Abbreviations:

General terms:

CIS - = general designation of the foreground hemisphere of creation, which is in principal accessible for our *normal physics* in the characteristics of *this eon*, between T_{gal} and present, symbolically abbreviated S_0.
TRANS- = (contradiction-term for CIS-) general designation of the hidden hemisphere of creation. Other transcriptions: quantum vacuum, hyperspace, shadow world, symbolically abbreviated $S_i..S_u$.

Terms of B.HEIM's multi-dimensional Quantum-field-theory [PCC; Fig 1]:

G4 = abstract coordinate-space ($x_9..x_{12}$); pure mathematically ruled probabilities
I2 = information realm (x_7, x_8)
S2 = structure realm (x_5, x_6)
R3 = geometrical foreground space (x_1, x_3, x_3)
T = time coordinate; R3+T = EINSTEIN-spacetime-quadruple: x_1, x_2, x_3, x_4 = -ict; + + + -
S_0, …S_i….S_u = designation of coordinate spheres (space and subspaces);…$_{i = 0,1,2..i,..u}$:
(…$_0$ = CIS-realm;…$_i$ = hyperspace light-cone-sphere; $_{...u}$ = edge-realm, touching G4)
x_1,…x_n ..x_{12} = coordinates of space and mathematically destined subspaces

Abbreviations of Theories – respective Observation Realms

cmb = Cosmic Microwave Background Radiation
cww = Cosmic Wide Web [Digital characteristic of *metron* in PCC (B.HEIM)]
ET = Entropy Theory
IT = Information Theory
GR = General Relativity
GRT = General Relativity Theory
PCC = Projection Chain Theory (Multi-dimensional Quantum-field Theory of B.HEIM)
PIG = Pressure induced Gravitation
QED = Quantum Electrodynamics
QQD = Quantum Gravitation Dynamics
QLC = Quantum Light Cosmology
QR = Quantum Relativity
QRT = Quantum Relativity Theory
QT = Quantum Theory
QTC = Quantum Temporal Cosmology
SRT = Special Relativity Theory
SBB = Standard Big Bang
SSC = Steady State Cosmology
ZPE = Zero-Point-Energy
ZPF = Zero-Point-Field

Single terms:

c, = quantised speed of light (i = spin-quantisation, i = 0, ..i…u; c_0 = surface-speed)
h_i, h_i* = spin-quantised PLANCK's energy quantum (h_i* = $h_i/2\pi$; i = 0,1..i..u)
ν = light ray frequency; L* = Planck-Length
T_{gal} = initial birth-time of ubiquitous galaxy-scenery as existence-swell of *this eon* S_0
z= measure of redshift of light spectra S_i, z_i ; i = 0,..i..u)

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- Space-Time-Foam –

0. The two wisdom sources

There are two wisdom sources: Insights by Revelation the way of GOD's Sovereign Word handed over to us in the Bible and explicated and understood by man's responsible thinking [a]. Knowledge on Creation by the way of observations and interpreting sciences [b]. Both information realms [a] and [b] should really not oppose!

1. Some Basic conditions [a, b] going the common way[1]:

1.1. Insights according [a] for a cosmic imagination:

The cosmos of energy-matter and life as a whole results of authoritative directives by GOD's Will and Word: There is no condition besides the own existence of HOLY TRINITY – creation ex nihilo [Hebr 11,3]. "*He spoke, and it was*". There is a threefold acting chain: *Will – word – informed energy.* GOD's first command: *There should be 'light'.* Space, time and controlled latent energy potential were gifted for all thinkable creation beings.

This space-time-energy framework is twice characterized: [1] Bestow a free- room for the created entities in own autonomy. Old Hebrew traditions name this gently withdrawal of the Sovereign Creator in favor on His Creation: Zim-Zum. [2] Work as GOD's medium for sovereign acting and ruling the things. In accord on I. NEWTON it sounds: space-time as *sensorium dei*, or fabric of space-time as GOD's medium to rule the creation autonomously.

We have to make out a primordial creation phase and the following status of perfect creation. On the first initial phase of GOD's sovereign acting our human acts of science are hardly applicable. This inhibit is also suitable to GOD's contingently acting to rule and sustain the creation through the s. c. salvation history (Heilsgeschichte). Further constraints or marks of [a] may be mentioned:

GOD did not create s. c. *laws of nature* in abstraction of the created phenomena. But the goal of creation, man and woman, by their bestowed intellect is able to extract regularities and structures by experience and observation, fix mathematical models and web theories of behavior of parts of creation. Man and woman should marvel on the wonderful order of creation and wisdom of the creator. Propagation of s. c. *self organization*

[1] This tractatus was mainly stimulated by Barry Setterfield: The Vacuum, Light Speed, and the Redshift. Preprint, Adelaid 2001. The main ideas are found in: Horst W. Beck: Variationen zu einer interdisziplinären Schöpfungskosmologie – Raum-Zeit als informierter Quantenschaum. Frankfurt/M 1999, 3f. [Abbr. Variationen-1999].

of nature as a main goal of science to detect, would be audacity of human being. God puts indeed a stop-sign: (Jer 31,37: *Thus saith the LORD; If heaven above can be measured, and the foundations of the earth searched out beneath, I will also cast off all the seed of Israel for all that they have done, saith the LORD.)*

Thus the concept of *world*-models may be a very abuse of the mandatarship of man. To fix a special kind of axioms and look for a wished class of solutions of equations may be a very pagan effort against the contingent acting of the creator and also a break of named conditions. This may be characterized *downward causation* instead *upward causation*. Let us look under these constraints on the basic command of the book of Genesis [1:3]: "*And GOD said, Let there be light: and there was light*".

`rAa-yhiy>w: rAa yhiy> ~yhil{a/ rm,aYOw]

1.2. Space-Time-Energy in accord to physics, information knowledge, and will-agent, related to [b]:

The way [b] we choose concepts in accord to the mentioned constraints: The Nobel-laureats J.ECCLES and K.POPPER concluded, concerning the whole of reality[2]: Reality is threefold: *aspect I* – energy-matter realm with its sophistication of regimes [*causality of mutual effects*]; *aspect II* – will ruled individuation realm [*agent causality*]; *aspect III* – information regimes [*causality of information procedures*]. All world aspects [I,II,III] are in se autonomous and not reducible to the others. But all phenomena should be integraliter described in all complementary aspects. There is also an irreducible and reverse-less hierarchy of causality: namely from II ➔ III ➔ I: *Downward causation* instead *upward causation*. These are basic restrictions or constraints of all sciences.

By very creation there was than an initial topologic structure of the s. c. *vacuum* – in the following named "*hyperspace*". Creation is after the initial phase ready in structure and topology. All basic types of galaxies as the material frame of earth and life and all basic types of organisms were preformed in a primordial immaterial information probability field 'G4' [s.fig.1], accompanying the basic strata of energy-matter S_u, which is later to clear up. Space is according I. NEWTON the *sensorium Dei* and according I. KANT the way, GOD is acting in creation, governing and sustaining His creation. The primordial structure of space and time of creation may not restrain the creator in His free and contingent acting. The basic cause of all, the primordial realm of things, the s. c. *fabric of hyperspace*, reveals as a last secret.

2. The new situation in physical Cosmology

2.1. The six basic theory groups of physics

What offers the theoretical reflection by the human creature, mainly the physical entertainment? Physics has reached six basic theory groups[3]: [1] *Gravitation* (the NEW-

[2] Horst W. Beck: Variationen zu einer interdisziplinären Schöpfungskosmologie – Raum-Zeit als informierter Quantenschaum. Frankfurt/M 1999, 3f. [Variationen-1999].
[3] The list may be incomplete.

TONian, the HAMILTONian, the EINSTEINian and heuristic issues in *super-gravitation*); [2] The *electro-magnetic realm* (QED the DIRAC-way; SED - stochastic electrodynamics[4]); heuristic features on connecting super-gravitation); [3] *Quantum Theory* [QT] (VON NEUMANN-standard and heuristic quantum-field extensions); [4] The standard model of *elementary particles* (CQD; heuristic issues in hyperspace detecting - super-string and membrane proposals); [5] *Thermodynamics [TD] and Entropy-Theory [ET*] (heuristic connections to basics of Information Theory); [6] *Information Theory [IT]* (According to NORBERT WIENER[5]: *Information is no matter nor energy, but an own essence of reality related to the author-question and the status of logic and mathematical skills for physics*). Information has a bridge function to all other sciences. The passionate goal is the one of integration. In vision: *Theories of everything* (TOE).

2.2. Things in Space and Time are Projections of Hyperspace – B. HEIM

I'll mention of the bundle of TOE's selectively one as specially fruitful for grasping creation features. Remember: the aim of models of the whole as an object for physics or science is excluded by definition of our task! But scouting out energy-matter-information structures, which respect or present GOD's sovereign acting from the beginning to the present and all futures may be charming and inspiring.

In 2001 died a German theoretical physicist, BURKHARD HEIM, leaving behind four volumes[6] on a basic quantum field theory [developed over 50 years]. B. HEIM graduated in theoretical physics at the University of Göttingen 1954. But as a disabled invalid (cruippled by a war accident 1944) he was prevented from an academic carrier and so he could spent his lifetime for this work. As HAROLD E. PUTHOFF in 1997 was informed on the theory by a group of German physicist, he stated: this stage of theory overtakes the American scenery in super-gravitation (TOE) for three decades[7].

In short some features in my interpretation: B. HEIM started the KLEIN-KALLUZA way of a total geometrication of all forces, inclusive *information-causality*, by respecting the results of quantum theory. So the basic feature of space-time is a *discrete* one, and the fabric of space needs a discretely describing not in differential equations (as GRT), however by a set of discretely formulated difference-equations for all mutual effects on the base of PLANCK-WHEELER structure of hyperspace. Fascinating solutions of the basic set of difference-equations were found. One could imagine a primordial expansion phase with the result of a nearly static cosmic web of PLANCK-cubes, by HEIM called '*metron*'. It is not a sea of randomly moving PLANCK-particles. It is a space-time corset for all thinkable events. In this cosmic grid as a three dimensional and finite standing wave set, each space-time-point in form of a discrete PLANCK-cube, may be accessible by mathematical algorithms. This theory with its solutions leads to a multidimensional hierarchy of coordinate-spaces, ending in the mathematic way organized causation regimes. All events ap-

[4] Barry Setterfield: The Vacuum, Light Speed, and the Redshift. Preprint, Adelaid 2001.
[5] Norbert Wiener: Cybernetics. Cambridge Massachusetts, 1961. cit. Royal Truman: Shannons's Theory of Information. Tagungsband der 19. Fachtagung für Biologie. 2002, Ed. SG Wort und Wissen, 55-70. Note [1].
[6] On B.Heim see: Variationen 6.3. 81-92.
[7] [http://people.blinx.de/behemoth/protosimplex/protosimplex_e.htm]

pearing in the foreground of fourfold EINSTEIN-space-time are projections from hyper-space creation-background.

Projection chain from the realm of spiritual activity [G4] via regimes of information [I2, S2] into the Einstein-spacetime [T, R3]

According BURKHARD HEIM and the 3-World-facetts of K. Popper und J.C. Eccles

(x_1, x_2, x_3)	+ (x_4)	+ (x_5, x_6)	(x_7, x_8) +	$(x_9, x_{10}, x_{11}, x_{12})$
Space	Time	Structure	Information	Realm G4
R3	T	S2	I2	G4

K.POPPER-J.C.ECCLES: P-E I P-E III P-E II

Coordinates of the material world and the 6 Coordinates of the non-material background

(R3	+	T)	<-- S2	<-- I2	<--- G4
Space	+	Time	Structure	Information	Realm G4
(x_1, x_2, x_3)	+	(x_4)	(x_5, x_6)	(x_7, x_8)	$(x_9, x_{10}, x_{11}, x_{12})$
material World				Non-material Background	

Projection chain form G4 into the material world according W. DRÖSCHER - B. HEIM [FIGURE 1]

Cosmic phenomena are suggested as projection of hyperspace and have a deeper causation as the measurable and observable realm. In accord to B.HEIM, the basic force besides gravity and electricity to hold and run the cosmos is information, projected from an immaterial source to the visible space-time reality. The French Philosopher JEAN GUITTON, in discussion with the Russian physicists GRICHKA und IGOR BOGDANOW, points out in his '*meta-realism*'[8]: we and all cosmic objects are swimming in a basic information field. So space and time itself are relative to this information cause.

Natural processes are complementary: The dialectic between *stationary* and *contingence running*. The *normal* is stationary and it's probability is nearly *one*. Thus we

[8] Jean Guitton, Grichka und Igor Bogdanow: Gott und die Wissenschaft. Auf dem Wge zum Metrealismus. Müchen 1992.

speak the metaphoric way of *laws of physics or nature*. E.g.: The famous GALILEI formulated the *law* of falling objects. That's of course our quite normal experience. But in accord to the quantum logic, sketched in multidimensional quantum field theories by B.HEIM, with a logic rate of probability we have to account for so named *contingence happenings*. The last are in no way random, rather controlled and induced by an accompanying immaterial latent leading level. The above projection picture (Fig.1) sketched this *downward causation*.

So for instance, the birth of the whole galaxy system with all parameters of order and stability could be grasped in terms of B.HEIM's theory as spontaneously and simultaneously induced by hyperspace circumstances. Space-time conditions and mutual forces to run are results of originating, say creation, and not their conditions! Hence you can't calculate backwards to the origin of a cosmic system on the stationary conditions now experienced. The contingence happenings are not to calculate. That's consequently exhausting the results of quantum theory.

We should confirm, that there is nowhere pure *physical* reality. Each phenomenon on the creation stage is rooted in the three POPPER-ECCLES-aspects. Of course, an elementary particle, an atom as a special particle feature, and mainly the basic creation strata called *metron* by B.HEIM, are touched.

After a primordial expansion phase of this world grid of PLANCK-cubes – this phase should be maintained in the secret of God's original acting and not subdued to an object of science[9] – we gain the astonishing multidimensional topology of space in the above mentioned double sense: corset for created entities and medium of GOD's sovereign ruling the things.

In accord to some results of the multidimensional quantum-field or hyperspace-theory of B. HEIM, we can sketch the following features:

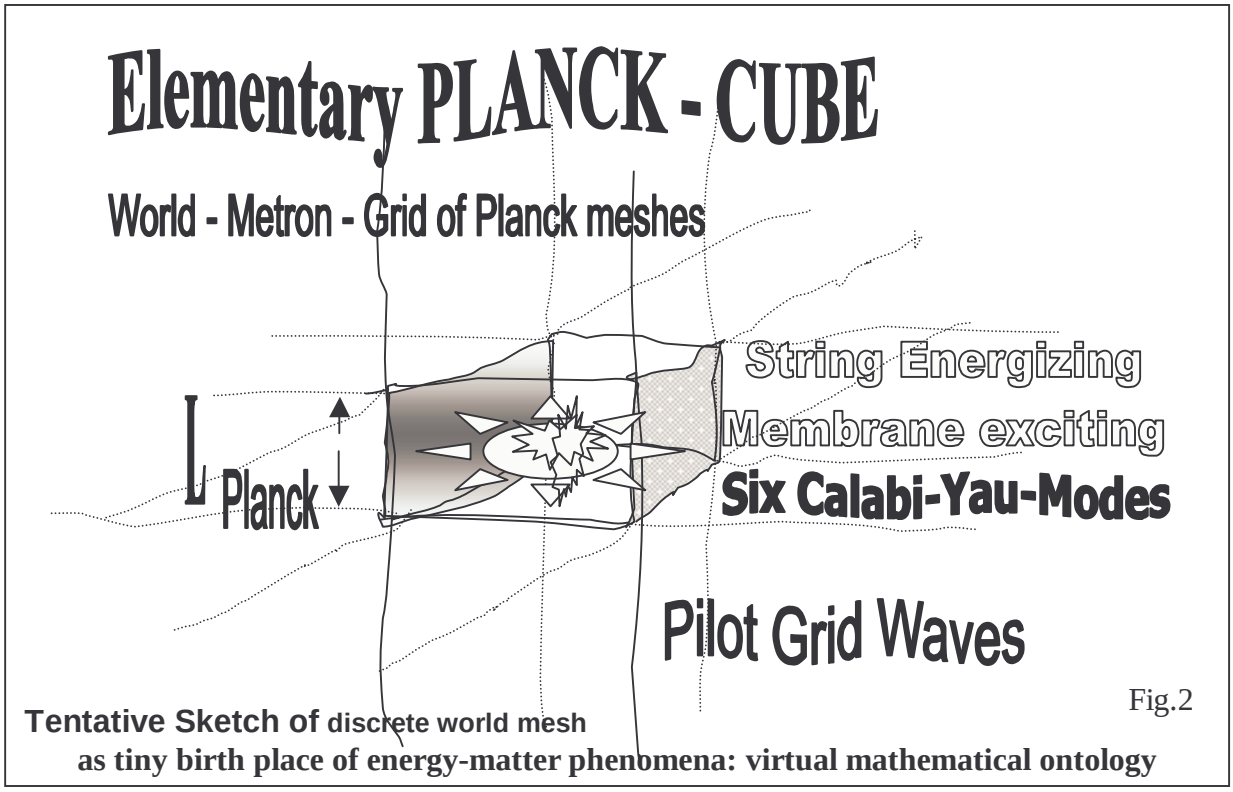

Fig.2

Tentative Sketch of discrete world mesh as tiny birth place of energy-matter phenomena: virtual mathematical ontology

[9] Hubert Gönner: Einführung in die Kosmologie. Heidelberg u.a1994, speaks in his Elementary Cosmology concerning the class <of inflationary theories>, stimulated by Alan Guth, soberly of the era of mathematical myths. Variationen, 55.

The discrete *metron*-web of PLANCK-cubes is a limited, finite, energetic substance, presented in 3 space-like dimensions by a standing pilot-wave, swinging on the PLANCK-wavelength L*[10], energized from a central emitting and back-flashes receiving source. In the double picture of quantum theory, it is likewise a basic creation substance of the DE BROGLIE-wavelength L*, or a universal wave. So the basic quantum stage presents a finite quasi-EUCLIDian space scaffold for all possible creation entities. Concrete entities may bow this ground stage by the effects of gravity and electromagnetic mutual effects.

So we gain a touch to the vague results of super-string or membrane theory:[11]

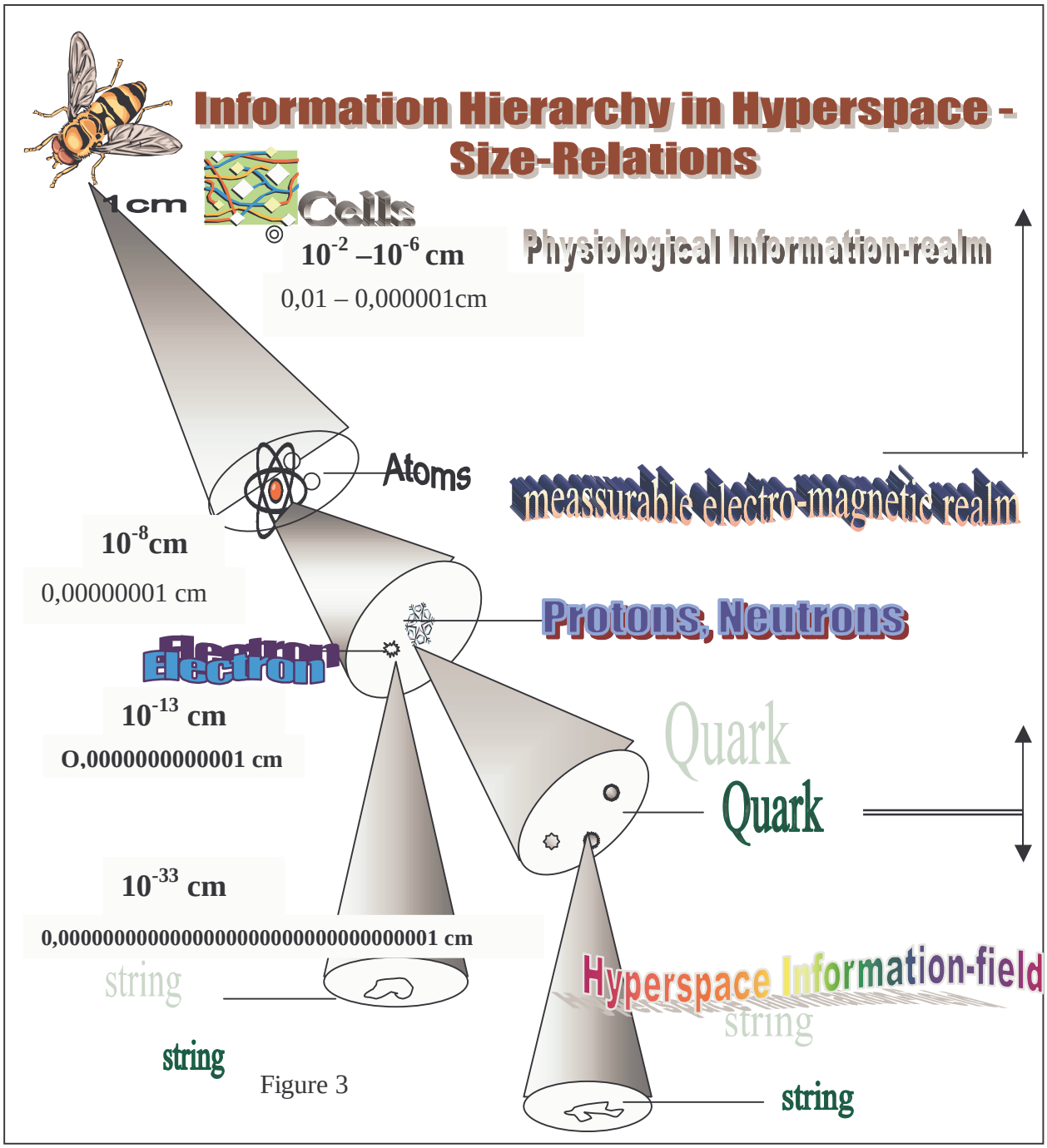

Figure 3

[10] L* = 1,6110^{-33}cm. Variationen, 125. L*^{2} s. c. PLANCK-WHEELER-elementary plane.

[11] Fig.3 is spurt on sketches in: Brian Green: The Elegant Universe – Superstrings, Hidden Dimensions, and the Ultimate Theory. London 1999.

One of the most striking results of the B.HEIM-theory is the mathematical concern of this ground stage of creation: each space-time-section my be addressed by a mathematical algorithm. So an additional digital feature of this space-time corset is revealed. Those pilot waves[12] with a stretching speed of nearly infinite value are bearing controlled information to induce addressed PLANCK-cubes. The basic substance of creation, the *metron*-web, is also a digital one. It presents the capacity of a cosmic internet bestowed with inconceivable computer and message capacity. As also J.GUITTON's meta-realism indicates: The basic substance of creation proofs as a cosmic information matrix.

In line with the above touched projection theory of B.HEIM, each space-time-unit can be a kernel of energetic stir to project a special elementary particle by power expansion from 10^{-33}cm – string feature - to the range of 10^{-13} cm – elementary particle stage. The particle feature is programmed by informed and in modes conditioned strings.

2.3. Hidden Energy in the Vacuum-Hyperspace

Basic quantum field theories[13] show the consensus: the so called vacuum has a Zero-Point-Energy (ZPE). The TOE-theories (String-Membrane-Theories, B.HEIM) confirm this. The *metron*-grid-substance, the basic cosmic internet-web (cww), is indeed very alive in the amount of Zero-Point-Fields [ZPF]. Count all the information processes and the enrolled string features of particles! Most of the cosmic energy is hidden in the fabric of space in the PLANCK-dimension and in other thinkable features of dark matter. B. SETTERFIELD summarizes the meanwhile accepted, in the quantum vacuum or hyperspace hidden energy part of creation, as incomprehensible or nearly unlimited for our human imagination. The citation may show the challenge[14]:

"In an atomic nucleus alone, the energy density is of the order of 10^{44} ergs per cubic centimetre. (An ***erg*** *is defined as "the energy expended or work done when a mass of 1 gram undergoes an acceleration of 1 centimetre per second per second over a distance of 1 centimetre.") …Estimates of the energy density of the ZPE therefore range from at least 10^{44} ergs per cubic centimetre up to infinity. For example, Jon Noring made the statement that "Quantum Mechanics predicts the energy density [of the ZPE] is on the order of an incomprehensible 10^{98} ergs per cubic centimetre." Prigogine and Stengers also analysed the situation and provided estimates of the size of the ZPE ranging from 10^{100} ergs per cubic centimetre up to infinity. In case this is dismissed as fanciful, Stephen M. Barnett from the University of Oxford, writing in* ***Nature*** *(March 22, 1990, p.289), stated: 'The mysterious nature of the vacuum [is] revealed by quantum electrodynamics. It is not an empty nothing, but contains randomly fluctuating electromagnetic fields with an infinite zero-point energy.' In actual practice, recent work suggests there may be an upper limit for the estimation of the ZPE at about 10^{114} ergs per cubic centimeter. There are a lot of sophistications on what really causes the amount of hidden energy, realised by electromagnetic fields and particles of an assorted status probably induced by specific light characteristics, which are later to envision."*

Creation as a whole gifted to human and other creatures is a so magnificent wonder, that it overwhelms any physically grasping. Nevertheless the physically accessible aspects should be cleared under the premise, that contradiction to confirmed physics should be avoided or at least minimized. Of course there remains a hermeneutic circle: *normal physics* in a reduced natural common sense is mainly apologized against s. c.

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[12] The QCD (Quantum Chromo-Dynamics) of elementary particle shows as incomplete und demands the hypothesis of a universal field of energy reservoir, named a scalar HIGGS-field. The scalar representation reproves on information characteristics and touches the *metron*-web of B.HEIM.

[13] B.Setterfield-2001: 1f.

[14] B.Setterfield-2001: 2.

new physics, boldly stretching on the mystery of hyperspace as the energetic and things causing main part of creation. One century discussion to interpret quantum theory throw light on the still open situation.

Later we will come back to shadow baryonic matter and fields. For this moment we will summarize: the measurable part of ZPE/ZPF of vacuum is a cosmic surface effect of all in the vacuum hidden baryonic and bosonic energy presentations. This surface effects don't hid a randomness chaotic energy fluctuation, rather than perplexingly destined fantastic structures of veiled creation as fabric of space.

The matter-energy household of s. c. visible part of creation presents a radiation-quanta and matter dense of $\rho_0 = 10^{-32}$ g cm^{-3} . The hidden part was roughly estimated above from $\rho_{zpe} \sim 10^{98 \rightarrow 114}$ ergs/cm^{-3}. That means: the energy-matter dense ρ_0 of the by *normal physics* accessible CIS-foreground relates to the hidden hyperspace energy-matter dense ρ_{hs} like[15] $\rho_0 / \rho_{hs} \sim 10^{-32} / 10^{66 \rightarrow 82} = 1 : 10^{98 \rightarrow 114}$. In words: The hidden part of creation seems so unbelievable dominant concerning the energy-matter treasure, that any physical cosmology reducing the affairs to the *visible* part (elementary particle micro-realm onto the macro-realm of faintest galaxies) must totally fail. So the naturalistic standard big bang cosmology [SBB] has hardly touch to the wonder of creation.

At this point of reflection it will be of advantage for the further efforts to make a fundamental distinction or definition: 'CIS'-realm of creation = physically accessible energy-mass part form elementary particle sphere to in principle visible galaxy horizon, namely the work realm of *normal physics*. 'TRANS'-realm = dominant hidden energy-matter of s. c. vacuum, better hyperspace, the touch realm of *new physics,* without any chance to exhaust the affairs. [Energy-matter relation CIS: TRANS ~ 1 : 10^{100} reveals as experienced foreground reality to hyperspace embedding like endless].

In the beginning I named principal restrictions of science: the whole of creation is no possible research object, neither in the CIS-, nor in the TRANS- aspects. So all campaigns to grasp the whole the way of natural sciences, especially the mathematical way, will not come up to scratch. The creator refuses this for his creature human [Jer 31,37]. But man as delegated scientist can detect so fascinating structures of creation, scratching the macro- and micro-realm from his position on earth, hints to bow his knees honouring his creator. But we human creatures are authorized to dig deeper and deeper, mainly also exploring the wonder of hyperspace.

2.4. The vacuum-hyperspace-corset of creation maintains as a stable *metron*

The insight to touch on or dig deeper in hyperspace mystery and detect unbelievable ordained features may be in contrast to the assumption of B. SETTERFIELD, that randomly induced PLANCK-particles give rise to the ZPE/ZPF. I concede, that in sum of all string provoked PLANCK-cubes the chaos impression on our detecting interface may be overwhelming. B. SETTERFIELD finally states[16]:

"The response of the fabric of space, through the behavior of Planck particle pairs, gave rise to an increasing energy density for the ZPE. This had two results. First, there was a progressive decline in light-

[15] 1ergs = 1g/s*1cm: $\square_{zpe} \sim 10^{98}$ until 10^{114} ergs/ cm^{-3} [g/s*cm/cm^{-3}]; $\square_{hs} \sim 10^{-32} * 10^{98 \rightarrow 114}$ cm*s/cm^{-3}.
[16] Setterfield-2001, summary 21.

speed. Concurrently, atomic particle and orbital energies throughout the cosmos underwent a series of quantum increases, as more energy became available to them from the vacuum. Therefore, with increasing time, atoms emitted light that shifted in jumps towards the more energetic blue end of the spectrum. As a result, as we look back in time to progressively more distant astronomical objects, we see that process in reverse. That is to say the light of these galaxies is shifted in jumps towards the red end of the spectrum. The implications of this model solve some astronomical problems but, at the same time, challenge some current historical interpretations."

The average density of ZPE / ZPF may not or only weakly change through the eon-time as the basic *metron* represents the stable space-time skeleton for all created and reproduced phenomena on the one side and GOD's acting medium on the other. So the surface-light speed of vacuum may be roughly a constant like present astronomical and laboratory observations demonstrate. This may not exclude the statistically observed small declining of light speed since Römer 1675[17].

The observed spectra red-shift with its intrinsic periodic structure in rays from cosmic emitters onto our detectors may find another explaining than the increasing ZPE/ZPF in our eon's time.

2.5. How to understand the master-pattern of cosmic redshift?

We must be conscious of the brilliant fine feature of the *hyperspace* as GOD's skillfulness. The creator fixed demarcation lines for man's skillful encroaching the mystery of creation: on the one wing we have the electron microscope, ending with the electron's COMPTON-wavelength; on the other wing the mega-skills of particle colliders in the borders of reached energy, scaled in Tera-electron-volts. The remaining intellectual skills to invade in the hyperspace mystery is since KALUZA-KLEIN-EINSTEIN pure mathematics, leaded by symmetry groups and extrapolated scattering structures of particle collisions and quantum-wave doctrines.

Found are now the PLANCK-web or *metron,* further some characteristic string features encapsulated in the PLANCK-dimension projecting constraints of particles, as mass, spin, charge, added six in the PLANCK-web enrolled mathematical space characteristics, named CALABI-YAU-spaces. The last postulated p-brane dimension, binding the five found string realms together, leads to the *metron* web or p-brane of B.HEIM.

The electromagnetic radiation of emitting cosmic light sources appears consistently redshifted. In the standard big-bang-scenario the common interpretation sounds: this is a relativistic DOPPLER-effect marking the universal mass-superfluid expanding, carrying the galaxies with it. According this interpretation, light from distant objects has its wavelength stretched or reddened in transit.

But at least since three decades, some groups of observing astronomers, namely HALTON ARP[18] [MAX-PLANCK-Institute-Munich] and WILLIAM TIFFT[19] [Steward Observatory in Tucson, Arizona] published on periodicity of redshifts and strengthened this view suc-

[17] Setterfield-2001, 19f strengthens since the NORMAN-SETTERFIELD-report "The Atomic Constants, Light and Time"-1987 [55] an observed decline in light-speed since 1675. That may stand: But the bearing result for the 2001-report is the stated and now accepted conservation of energy, facing the variety of light speed.
[18] Variationen...6.1.Halton C.Arp: Kontroversen
[19] Variationen...6.2. William G.Tifft: Periodicity of redshifts – Quantised Time.

cessfully against the mainstream establishment[20]. W.TIFFT et al. derived an equation for anticipated values { Fig.4}:

The equation for possible periods P is

$$P = c2^{-\frac{9D+T}{9}},$$

where c is the speed of light. The relationship describes nine 'period doubling' sequences. An integer $D \geq 0$ specifies the order of doubling and an integer T ranges from 0 to 8 to distinguish the nine sequences. Equation (2) fixes possible periods very precisely; observations, discussed below, match the predictions. Since interpretations vary, we view the equation as a semi-empirical fit. Table 1 lists some of the most significant periods; periods associated with all T values have been identified, but certain values appear much more often.

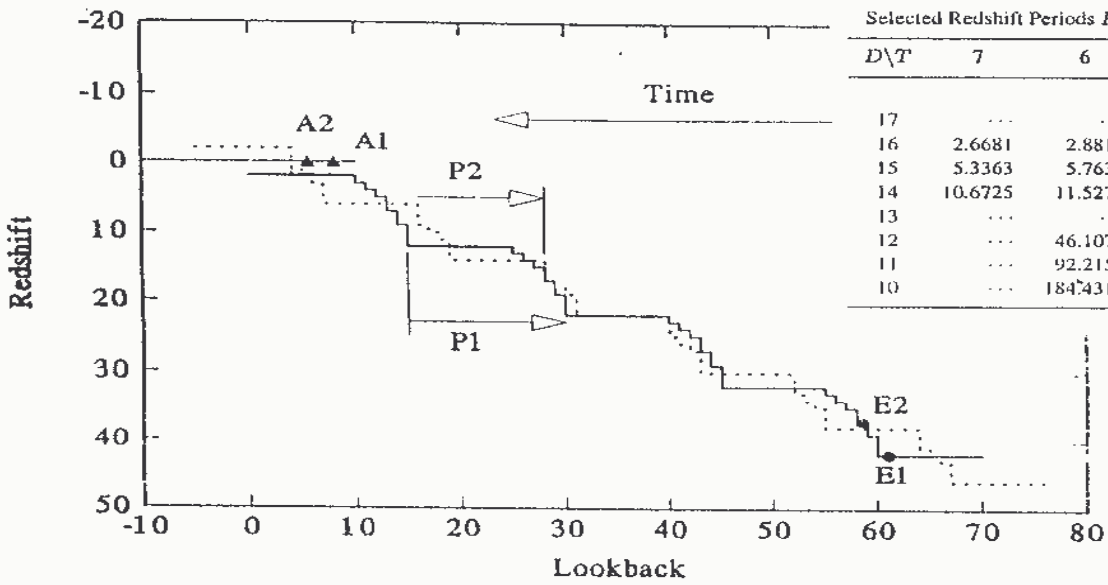

Table 1
Selected Redshift Periods $P = c2^{-\frac{9D+T}{9}}$

$D\backslash T$	7	6	0
17	...	...	2.2872
16	2.6681	2.8817	4.5745
15	5.3363	5.7635	9.1490
14	10.6725	11.5270	18.2979
13	...	...	36.5958
12	...	46.1078	73.1916
11	...	92.2157	146.3833
10	...	184.4313	...

H. ARP stated a formula strictly derived from quasar surveys $(1-z_n)/1+z_0) = 1.23^n$, which gives the precise peaks:

$z_1 = 0.06$; $z_2 = 0.30$; $z_3 = 0.60$; $Z_4 = 0.96$; $z_5 = 1.41$; $z_6 = 1.96$; $z_7 = 2.64$; $z_8 = (3.47)$.

The red-shift periodicities as observed by H ARP and W TIFFT, supported by others, unveil a harmonic master-pattern (W.TIFFT) of the physically accessible universe. The hyperspace ground-state unlocks as a PLANCK-cube-riddled standing, and border limited, and by source-point initiated pilot-wave, comprising the threefold dimensioned space itself. So solutions of the B.HEIM discrete world-equation-set turn out a world-radius and in the EUCLIDean wave-sphere a wave-source-center[21]. Without a source no wave! The so-called cosmological principle, the ROBERTSON-WALKER-metric of no set-off-points in the time-space quadruple, doesn't function! Those hints are all contrasting the common hot-big-bang-scenario.

That urges further the imagination, that the physical cosmic features from the tiniest fine tuning information web *metron*, in string and membrane configurations, to particle

[20] Setterfield-2001: THE REDSHIFT GOES IN JUMPS, 7.
[21] The results may be criticized and altered concerning his suggestions of 'c' and 'h' as constants. I discussed this problem with him in 1996. He seems open for such a differentiation of his issue.

spin vibrations, atoms, chemical elements, molecules, the life-wing unto macro-molecules, cells, organisms and the star-wing to gases, particles clouds, star-crowds unto galaxies, and galaxy-clusters and hierarchies, reveal and repeat basic patterns. According the B.HEIM's quantum-field-theory, all physical fundamental values are derivatives of the so-called PLANCK-WHEELER-plane (PLANCK-length L*, PLANCK-cube). Neither 'c' (boson-speed) nor 'h' (PLANCK- energy-bit) are fundamental constants. The electro-magnetic coupling-value [$\alpha = e^2/2e_0*h*c \approx 1/2^7+2^3+2^0$] hides another creation-constant, the conjunct product [c*h]. We will later state, that these conjunct gauge-values, related to the revealed patterns, are analogously quantised: [c_I * h_i] = constant (i= 0,1. i…u). That would split the light-ray cones in speed ranges through hyperspace. The photon bears as other particles a quantised spin [h_i]. Hence the treaty of light-moving trough multidimensional hyperspace will be a very demanding one.

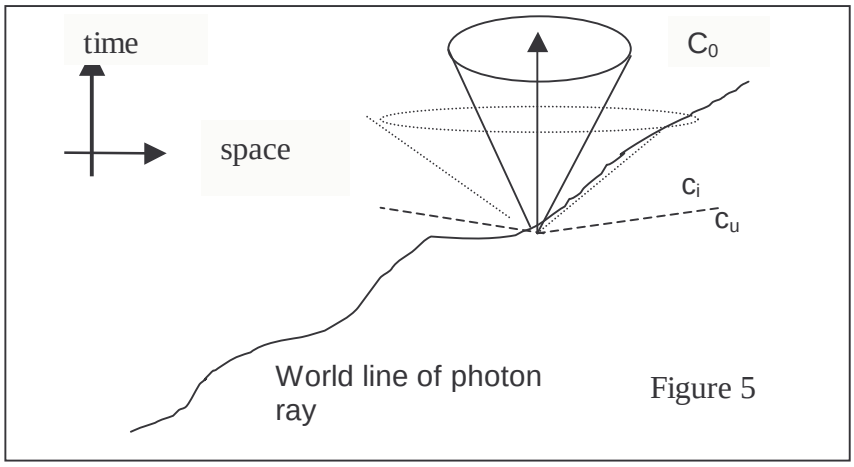

Figure 5

ARP and his discussion partners[22] suggest indeed, that the whole physical universe reflects related patterns: the quark behavior, the particles spins, the redshift quantisation as a function of electron spin suggested by H.ARP[23], the atom orbits, the observed patterns of galaxy hierarchies, galaxy clusters and cosmic scaled mega-structures, the planet orbits, seen by H.ARP as a function of creation and aging of matter.

This fascinating vision of master patterns from the PLANCK-vacuum/ hyperspace via the micro-particle realm over the accretion star-planet disks unto the galactic structures, guides consequently to the idea of a *harmonic's theory*, possibly based on super-gravity (Membrane / B.HEIM-Theory and touching QED). May be, man could grab only some shreds of the inspiring sophisticated harmonics. HARMONIA MUNDI is traditionally in vision by confidence onto an intelligent creator: HE spoke, and it was, namely information loaded wave patterns.

Back to the sober physically grasped relations, one have to query H. ARP concerning his aging mass theory.

ARP asks[24]: *" Can the mass of the electron then be expressed in units of time? Formally that is simply achieved by using the Compton frequency of the electron ν_c, the Planck constant h, and the velocity of light c: $m_e = h/c^2\nu_c$… So we see that as the mass grows, the frequency (the fundamental clock rate) increases. In the past the frequency was lower."* ARP makes concern to the NARLIKAR-solution of General Relativity assuming that the particle masses change on cosmic time scales:

[22] Halton Arp: Seeing Red – Reshifts, Cosmology, and Academic Science. Montreal 1998.
[23] Arp: Seeing Red, 217.
[24] Arp-Seeing Red, 218.

$m_p = a\ t^2$ – the mass of an elementary particle varied as the time squared (where 'a' is a constant)[25]. Obviously NARLIKAR and ARP treat >*c*< and >*h*< as cosmic constants, only m_p = f(cosmic time t). But meanwhile theories reflecting the influence of vacuum-hyperspace, treat *c* and *h* as derivatives of vacuum characteristics with varying features induced by the vacuum space-topology. ARP himself suggested the redshift quantisation as a function of electron spin[26]. So a consequent conclusion would be along the harmonic's issue, that also the particle's spin should be quantised, inclusive the photon's spin. This leads to the strong implication, that *h* and *c* will obsess special quantum states enrooted in the PLANCK realm. For this we choose the wider formulation: $m_{p,i} = h_i/c_i^2\nu_c$. Where i = "$_{0,1,.i,..u}$" are inner string-constraints of the PLANCK-tensorium *metron*.

This wider formula contradicts the NARLIKAR/ARP issue, that lower mass-statuses of particles were only dependent on the COMPTON-frequency of an elementary particle varying with cosmic time-flow. It depends on the quantised particle spin, induced by vacuum sophistications. As c_i and h_i , namely quantised values, are affected, the postulated MACHian influence would be mediated by the multidimensional vacuum itself and not simply by causal conditions of the EINSTEIN-relation cone. This is touching the non-locality or holism, confirmed after a century discussion of quantum theory [QT]. As all elementary particles with its atomic and molecular aggregations are embedded in the vacuum as hyperspace projections, the simple square relation between mass and time ($m_p = a*t^2$) has to make way for a demanding topological treatment of particle spin, light emission, mediating trough quantum vacuum and its redshifted spectra receipt by a detector.

In short: the time-relation surrender to a topological hyperspace result. As we will see, particle creation onto the stage of fourfold EINSTEIN-spacetime, needs no time elapsing in an EINSTEIN-cone. It appears in accord to B.HEIM'S projection theory as a sudden contingent event under the constraints of HEISENBERG's uncertainty law.

To understand this a bit deeper, we have to think about hyperspace topology, string-membrane features, power expansion from PLANCK-realm (10^{-33}cm) onto the particle stage (10^{-13}cm) , spin quantisation and the behavior of atoms as projections of vacuum stage. One expected result will be the fractioned speed of light or quantised electro-magnetic waves by the in the PLANCK-tensorium *metron* enrolled coordinate-dimensions.

2.6 Further Remarks on Hyperspace Topology

In difference to SETTERFIELD's conclusions of a cosmic time dependent and cosmic wide vacuum compression, which leads to an ubiquitous declining light speed, surprisingly also in fractions, with consequences for induced redshift fractions, we will treat the vacuum-hyperspace as an eon-time-stable universal standing wave with the PLANCK-wave length L* as ground state. So the fractioned redshift effects derive from the wonder of encapsulated light cones in hyperspace, an old Jewish creation doctrine of seven sephiroth (sephira = light-strata mediating GOD's directives). With this remark I remember the method as steps of natural philosophy. The famous MAX PLANCK philosophized on

[25] Arp-Seeing Red, 226.
[26] Arp-Seeing Red, 217.

physics: physics starts always in first steps with s. c. “Gedankenexperimenten”[27]. The second step require heuristic models which leads in auspicious cases to mathematical theories and in some favorable cases to confirmed ‘laws’. The second and third step for experts! Let’s go to the first steps:

First we have to make fundamental distinctions: Human’s position to grasp the wonder of creation is a middle one on his dwelling place ‘earth’: from there he may explore the sky and the earth and the mystery of matter, energy and information.

Access on sky is only by detecting and analyzing electro-magnetic waves and in special cases the invasion of extraterrestrial material. The HUBBLE Telescope or in future other superdetectors widens the spectra view to an endless metagalaxy of hardly understandable radiation sources: gases, particle clouds, magnetic lenses, jets, star’s and galaxy’s clusters, dark matter influences.

The direct view into the subatomic micro-realm is barred by the mini-size of the elementary particles itself. So only an indirect access by theoretical-mathematical means is possible. The structure of quantum theory itself veils the hidden mystery of hyperspace-vacuum: statistical description of the amount of viewed events by non-locality, non-separable entities, information caused single goings-on. The interpretation challenges with the notion: a single statistical quantum may be caused by a hidden decision beam of 10^{30} bits (C.F.VON WEIZSÄCKER/ TH. GÖRNITZ[28], B.HEIM[29]).

There pops up a demarcation line between s. c. *normal* physics and *new* physics. *New* physics invades the more speculative way the mystery of hyperspace. A bunch of parameters remain free. Cosmology and cosmogony were and will be always more than pure *normal* or *new* physics. There are elements of religious revelation and experience, added the wide field of s. c. para-normics. To be quit realistic: The interaction between the ‘self and it’s brain’ (POPPER-ECCLES) remains a paranormic one and is quit *normal* all-the-day experience, vital for the mental acts of physics, mathematics, philosophizing on hyperspace, meanwhile demonstrated as a quantum-statistical trigger mechanism in neuro-synapses[30]. No doubt also on the satisfactorily witnessed experience of sudden vanishing and poping up of concrete bodies off or on the stage of visibility, that means the affect field of our normal electro-magnetic behavior with the surface-value ‘c_0’ = 299729km/s. That’s not the same as the s. c. wormwhole wonders as special solutions of GRT[31]. This surface value $c_0^2 = 1/\varepsilon_0 * \mu_0$ should be clearly discriminated from light-speed cones $c_i^2 = 1/ e_i * \mu_I$, hidden in the compactified dimensions of hyperspace-vacuum.

Definitions: The electric property of the vacuum/ hyperspace is called the *permittivity* $\varepsilon_{o,..i,.;}$ the magnetic property of hyperspace/ vacuum is called the *permeability* $\mu_{o,..i}$. The indices $_{o..,i..u}$ sign a suggested quantisation. The index ‘$_0$’ signs a nearly eon-constant surface worth of our experienced ‘CIS-side of creation, the interface or surface value of *normal* physics. The indices $_{1,2..i..u}$ stand for enrolled light strata in the basic universal

[27] It’s the way of ‚Natural Philosophy’, which was by Kepler, Newton, Leibniz, Kant not separated from ‘Science’. Kant published in 1755 the first ‘planitesimal theory’ the pure philosophical way, in basic lines astonishingly modern and accepted until now.
[28] Thomas Görnitz: QUANTEN SIND ANDERS - Die verborgene Einheit der Welt. Mit einem Vorwort von Carl Friedrich von Weizsäcker. Heidelberg-Berlin 1999. notably 199, 291.
[29] B.Heim: Founding the quantum theory even on information theory [Fig.1].
[30] F..Beck-J.C.Eccles: Quantenaspekte Der Gehirntätigkeit und die Rolle des Bewusstseins. How the Self controlls ist Brain. Berlin-Heidelberg-1994,213ff.
[31] Klaus Mainzer-Hawking-Freiburg.i.B.2000,115.

wave, called metron or PLANCK-tensorium. "$_u$" signs the border characteristics of this ground stage "metron". For further understanding we may gladly follow B. SETTERFIELD:

"Because light waves are an electro-magnetic phenomenon, their motion through space is affected by the electric and magnetic properties of the vacuum, namely the permittivity and permeability. To examine this in more detail we closely follow a statement by Lehrman and Swartz[32] *[22]. They pointed out that light waves consist of changing electric fields and magnetic fields. Generally, any magnetic field resulting from a change in an electric field must be such as to oppose the change in the electric field, according to* ***Lenz's Law****. This means that the magnetic property of space has a kind of inertial property inhibiting the rapid change of the fields. The magnitude of this property is the* ***magnetic constant*** *of free space 'U' which is usually called the* ***magnetic permeability*** *of the vacuum.*

The electric constant, or permittivity, of free space is also important, and is related to electric charges. A charge represents a kind of electrical distortion of space, which produces a force on neighbouring charges. The constant of proportionality between the interacting charges is 1/Q, which describes a kind of electric elastic property of space. The quantity Q is usually called the ***electric permittivity*** *of the vacuum. It is established physics that the velocity of a wave motion squared is proportional to the ratio of the elasticity over the inertia of the medium in which it is travelling. In the case of the vacuum and the speed of light, c, this standard equation becomes* $c^2 = 1 / (U\,Q)$.

As noted above, both U and Q are directly proportional to the energy density of the ZPE. It therefore follows that any increase in the energy density of the ZPF will not only result in a proportional increase in U and Q, but will also cause a decrease in the speed of light, c."

So far I willingly follow SETTERFIELD. (I use the common terminology: U = ε; Q = μ). But as above sketched, the structure of hyperspace-vacuum is much more sophisticated than the imagination of a sea of randomly existing und distributed PLANCK-particles, inducing ZPE-fields. The randomness is indeed a surface or interface effect of vacuum, a kind of surface-'Zitterbewegung' of randomly popped up virtual particles, inducing also the CASIMIR-effect.

G.NIMTZ, experimental physicist at the University of Colognia, reports of vacuum-tunneling experiments in Cologne/D and Berkeley/Ca, in which fractions of light seem instantaneously tunneling with no measurable time elapsing through distances of vacuum. G.NIMTZ interprets those results as demonstration, that information and causal connection in the topology of vacuum are nearly timeless mediated. That's confirmation and a kind of explaining the holism and non-locality of quantum theory. So NIMTZ modulated a BEETHOVEN-Symphony on his experimental light beams, tunneling in fractions, in vision to spread it out instantaneously ($c_u \sim \infty$) in the cosmic basic wave to all speculated recipients[33]. What a dream of J. KEPLER: Sphere harmony and cosmic music!

In my estimation on TOE's, the B.HEIM'S harmonics theory, a discrete quantum field theory of all joint effects concerning energy-matter, inclusive *information*, may be in accord to HAROLD E. PUTHOFF right now the top one. Special results should be inspiring to explore more on the hyperspace-vacuum feature, following the above given hints: In common with membrane theories, each PLANCK-cube, mathematically addressable as proofed by B.HEIM, may be a contingent source of power expansion the way of light-cones or cube fixed expansion cones the way of drilling up transitory wave energy into particles with it's special energy-spins as cosmic web-knots.

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[32] Setterfield, Note [22].

[33] Nimtz, Günter: Schneller als das Licht? Physik in unserer Zeit. 28.Jg.1997, Nr.5,S.214-218. Köln,1996.

MICHIA KAKU[34], expert on string theory, echos in his conclusion on the stage of String/Membrane-Theory the passion of archeologists: looking for "*artifacts and accidentally stumble upon a tiny, shiny pebble, When they carefully brush away the sand from the pebble, they find that is not a pebble at aIl, but the tip of a colossal pyramid. Excitedly, the archeologists remove the sand and dirt, revealing a complex and rich network of tunnels, secret chambers, and hidden rooms. However, with each layer of sand they remove, they find even more layers and riches. Where will it all end, they ask themselves? Finally, after years of effort, they finally have excavated what appears to he the ground floor of the pyramid. They find what appears to be the entrance to the pyramid. With trepidation and excitement, they open the door.*

Going boldly through the doors, we hope to find the following treasures: the string configurations, enrolled in the PLANCK-tensorium, are loaded, as MICHIA KAKU tells us, with unbelievable amounts of special sets of information, incorporated in the modes and over-modes of string-membrane vibrations. "*Physicists have not the slightest understanding of why ten (8+2) and 26 (24+2) dimensions are singled out as the dimension of the string!"*[35]*.." The discovery of Witten and Townsend that a new, mysterious theory, called M-theory, lurks in the eleventh dimension, which includes membranes and p-pranes, has revealed the richness and unexpected complexity of string theory*[36]*".* No doubt, there is the source of all patterns for the harmonics of creation. This visions coincide appreciably with the projection insight of B.HEIM (s. Fig.1). As M.KAKU points further out, the string-light-cone theory solves as well the problem of so called super-luminosity or violation of CIS-causality. Strings may transfer information respectively causation inside the PLANCK-realm in the elevens membrane stratum, better to announce it as the metron-web, instantaneously, respectively by $c_u \sim \infty$.

NARLIKAR-ARP envisaged matter creation from any abstract zero point, jetting together vacuum wave-energy, with appearance by time depending mass growing in the EINSTEIN-space-time and mass-interaction by the EINSTEIN-relation-cone from the birth-point on. We criticized this issue above as contradictory to the low-mass condition, which requires fractioned superluminous orbit speeds in atoms, respectively weaker particle spins on quantum constraints "i". [c_i*h_i = constant; V.TROITZKII, B.SETTERFIELD].

Following roughly B. HEIM, contingent matter creation means inflationary power expansion from the, by algorithm eligible starting cube, marked by the fine tuned characteristics of the intended particle (spin vector, mass, charge). According to HEIM'S multidimensional projection theory [Fig 1], the informed and energized status of each possibly selected PLANCK-cube will be conditioned by the downward causation chain $\{(x_{12}\ldots x_9),(x_8,x_7), (x_6,x_5), (x_4), (x_3\ldots x_1)\}$ or $G_4 \rightarrow I_2 \rightarrow S_2 \rightarrow T_1 \rightarrow R_3$. *G4* symbolizes a primordial field of probabilities, ruled by sets of mathematically configured numbers, which steer the information realm I_2 to depict on the structure coordinates of space S_2 , which are the geometrical way added to the time coordinate x_4 = -ict, likewise imaginary $x_5 = -i\varepsilon$, $x_6 = -i\eta$. X_5 deems the change of order as dynamical entropy parameter, called entelechy coordinate, and x_6 is called an *eon*-coordinate, naming a selection function out of a manifold of possibilities.

B. HEIM discerns three kinds of spontaneously from primordial hyperspace induced projections in the fourfold EINSTEIN spacetime to rays, respective particle features: the photon light cones, the ponderous electric neutral *neutron* and the charged ponderous *proton* and *electron*. Those phenomena are likewise the sources for the gravitation fields.

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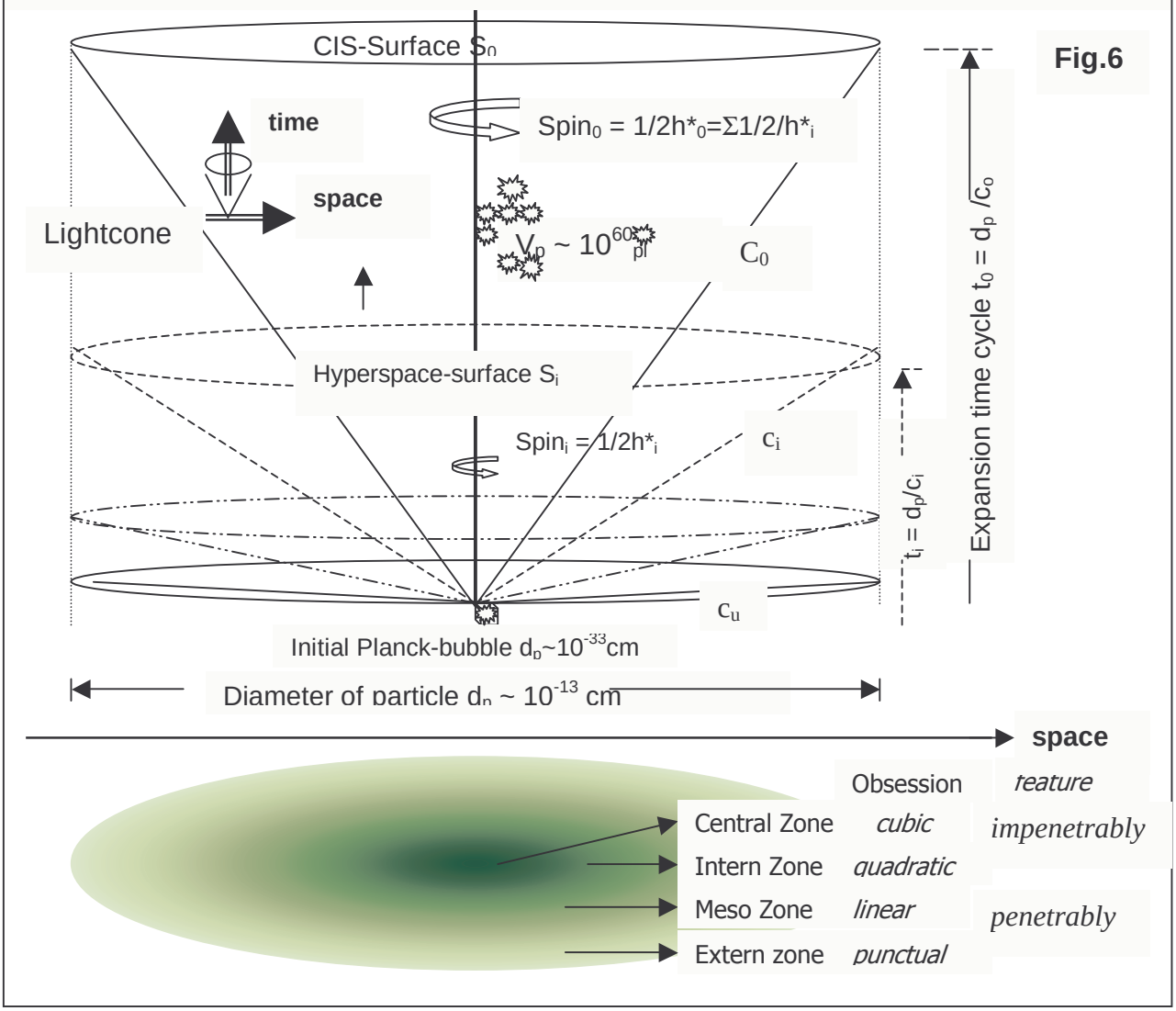
[34] Michio Kaku: 5 Strings , Conformal Fields, and M–Theory. Heidelberg-2000, 522.
[35] Michio Kaku: HYPERSPACE. New York, Oxford 1994, 173.
[36] Michio Kaku: 5 Strings ..- 2000, 522.

This basic projection found the hyperspace-dynamics the mathematics' way. The birth of an elementary particle as a sophisticated projection chain results from a kind of storm of information bits (10^{30}), hierarchically controlled by the three imaginary coordinates $x_4 – x_6$. The bit-storm invades a selected manifold of PLANCK-cubes. One can roughly estimate for the COMPTON diameter D* ~ 10^{-13}cm of a particle an amount of ~10^{60} affected cubes. Electrical charge and gravitation effects were understood as specific space distortions in the granulate of PLANCK-size. It is really bold to imagine or sketch features in such a tiny creation horizon. But the stimuli came from super-collider results, were particle collision traces led to the threefold quark understructure of nucleons, inner swinging turbulences of the nucleons. From here the diverse string issues took the mathematical way onto the converging p-prane swing type, representing information configurations in the PLANCK-web.

Allusion of particle birth – quantised steadily power expansion in hyperspace



Following tighter the B.HEIM-projecting chain, contingently induced materialization to concrete particles starts from *G4,* as the treasure of mathematically configured primordial constraints of the possible creation entities, mediated through the coordinate background spaces [*I2*], mathematically appearing as quantum probabilities and imaginary

information coordinates, selecting the addressed PLANCK- cube realm with a very specific excitation, inducing the feature of a particle, charged electron or neutron as a consequence of information induced probabilities.

The pictur of a cloud of steered up PLANCK-particles, respective PLANCK-cubes forth oneself. The two named regulative coordinates ($x_5 = -i\varepsilon$ and $x_6 = -i\eta$) steer the time elapsing ($x_4 = -ic_it$) of inflationary power expansion from the central PLANCK-string set onto he particle cloud sphere ($10^{-33} : 10^{-13}$ cm). Quantised light cones (c_i) may drill the energetic resource of transitory pilot waves of the metron set into analogously quantised spin fractions of the PLANCK cube collective (~10^{60} cubes). So we suggest in the line of H. ARP a quantisation of encapsulated spins ½ h^*_i . The surface spin of the concerned fermions, electrons and nucleons, in the accessible CIS-realm of EINSTEIN-spacetime counts for the sum of encapsulated spin quanta ½ $h^*_0 = \Sigma_\iota 1/2h^*_i$ ['$_0$' for 'Cis'-surface, '$_i$' for embedded hyperspace part; $h^* = h/2\pi$][37].

The named projection-theory of B. HEIM describes the specific cycle dynamics in very details the mathematics way, showing each elementary particle as a steadily cyclic flow of distortions of the PLANCK-granulate. An elementary particle exists as long as this steadily cyclic flow maintains. In this cycling space-part ($d_{particle}$) exists a very dense impenetrably central zone, surrounded by steps of lower obsessed shells.

Interruption of this distortion flow means radioactive decay. The mathematical sophistications of this multidimensional projective compressions leads to a precise formula of mass spectra und a theoretical foundation of quanta numbers. B. HEIM's theoretical success is really striking and beyond generally reached QCD.

The fruitful theory of DRÖSCHER-HEIM showed, how this touched projecting events lead to the basics of quantum-theory, mainly the HEISENBERG's uncertainty conditions $\Delta x \Delta p \geq 1/2 h^*$ and $\Delta t \Delta E \geq 1/2\, h^*$ which guarantee the ZPE of hyperspace as the significant energy realm of creation. In the projection chain reality the uncertainty principle is induced by accompanying subspaces, which sign the openness for immaterial information, guiding the phenomena of CIS-surface of creation.

In the framework of above sketched [fig.4] lightcone diversifications (c_i), we have to follow the hyperspace-birth of particles from the PLANCK-web onto the CIS-surface. One speaks of a stationary power expansion from the basic string configurations inside an initially excited PLANCK-bubble, spreading the bit conditioned constraints in a spin rotating cloud of PLANCK-grids, with sub-features of quark confinements and spin-fractions, according to the light-cone quantisation. The quark confinement, invented by M.Gell-Mann 1967 and since refined to the QCD-model of elementary particles for the accessible CIS-side, may count for the stableness of nucleons during eon-time. The electron's PLANCK-bubble cloud seems weaker and convertible to other particle forms.

Coming from this basic projection chains according to B.HEIM'S hyperspace dynamics, 'Gedankenexperimente' on the atom highlights invades the imagination. The insight, that the speed of light will be characterized by the physical properties of transgressed medium also providing the hyperspace dynamics, may now be accepted to *'nor-*

[37] In this generalizing text a linear sum of spin-quanta sounds only symbolically. Experts are dealing with a kind of spin crisis: Klaus Rith and Andreas Schäfer: The mystery of Nucleon Spin. Scientific American July 1999, 42-47: The total spin of a nucleon in Einstein space-time doesn't simply show the sum of quark-spins. The internal structure of nucleons is so much sophisticated, that evince beyond recent understanding.

mal physics'. The cosmological theories of V. TROITZKII, the Russian astronomer from Novgorod/GUS[38] and B. SETTERFIELD's proposals on the subject showed, that the stableness and geometry of atoms will not be affected by changing light speed, even if the spins and orbiter velocities of electrons were ruled by speed of light. Just the PAULI-law of possible energy status', bearing the fascinating structure of periodicity of elements and the chemical laws of quantum reactions, combining the atomic elements onto the world of stuff and creation entities, seems not beeing depending on the numerical value of the speed of light. The main reason may be the quantisation of the light cones itself in the mystery of hyperspace. The PAULI-law in the CIS-sphere of atoms and elements, seems to be rooted in the quantisation law of light-speed cones of the hyperspace dynamics.

So there reveals a harmonic's scale from the fine tuned string constraints directed by the $x_5 = - i\varepsilon$ and the $x_6 = - i\eta$ - entelechy-coordinates through the quantisation of light cones and spins, the way of power expansion onto the CIS-particle level eventuating in the atom's countenance. Each the atom constituting particle, the nucleons and the orbiting electrons, are worlds of its own, deeply rooted in the hyperspace dynamics, representing besides the radiation quanta of energy of the PLANCK-web metron, the main amount of ZPE. The ZPE-hyperspace bed of the atoms is recently demonstrated as the condition of the very existence of the atoms in eon-time. We may follow B.SETTERFIELD:

*"This was clearly demonstrated by Dr. Hal Puthoff of the Institute for Advanced Studies in Austin, Texas. In **Physical Review D**, vol. 35:10, and later in **New Scientist** (28 July 1990), Puthoff started by pointing out an anomaly. According to classical concepts, an electron in orbit around a proton should be radiating energy. As a consequence, as it loses energy, it should spiral into the atomic nucleus, causing the whole structure to disappear in a flash of light. But that does not happen. When you ask a physicist why it does not happen, you will be told it is because of **Bohr's quantum condition**. This quantum condition states that electrons in specific orbits around the nucleus do **not** radiate energy. But if you ask why not, or alternatively, if you ask why the classical laws of electro-magnetics are violated in this way, the reply may give the impression of being less than satisfactory [4].*

Instead of ignoring the known laws of physics, Puthoff approached this problem with the assumption that the classical laws of electro-magnetics were valid, and that the electron is therefore losing energy as it speeds in its orbit around the nucleus. He also accepted the experimental evidence for the existence of the ZPE in the form of randomly fluctuating electro-magnetic fields or waves. He calculated the power the electron lost as it moved in its orbit, and then calculated the power that the electron gained from the ZPF. The two turned out to be identical; the loss was exactly made up for by the gain. It was like a child on a swing: just as the swing started to slow, it was given another push to keep it going. Puthoff then concluded that without the ZPF inherent within the vacuum, every atom in the universe would undergo instantaneous collapse [4, 23]. In other words, the ZPE is maintaining all atomic structures throughout the entire cosmos."[39]

According on the mentioned H.PUTTHOFF - B.SETTERFIELD-statements, the wonder of particle birth and maintenance out of the fabric of hyperspace shows, that the hyperspace realm around the very particle existence, mainly in the atomic and molecular bundling, is very alive and zippy. The picture of embedding and reacting virtual particle clouds gets a feel for. Gedankenexperimente or pictorial imaginations of elementary particles and their atomic organizations share the HEISENBERG's blurry, as a consequence of information induced probabilities.

[38] Variationen 69ff
[39] Setterfield-2001, Why Atoms don't self-destruct, 6.

Following the suggestion of quantised spins of the constitutional particles of atoms, consequently the whole atom status is a quantised one. Since H. ARP and W.G.TIFFT, founded on reach observations concerning redshifts, strengthened for a periodic master plan behind all electro-magnetic spectra, the case for theoreticians was announced[40]. Issues by C. ROVELLI, L. SMOLLIN, W.G.TIFFT and W.J.COCKE focused on quantising time and space itself: *Quantum Temporal Cosmology* [QTC]. It's always looking for basic harmonic features. What ever the very provisional results may be, the last relation structure reveals as the above introduced B.HEIM-*metron* of PLANCK-WHEELER-surfaces or cubes. I. KANT's sharp call to accept time and space as >Anschauungsformen<, *regulative ideas* of our reasoning, remains valid. So not our regulative ideas to grasp creation are in question, rather the energetic substrate, which is so fantastic discretely sponsored as formed by the named enetelechy-coordinates. Not space and time, rather light as the basic energetic medium to establish the fine tuned entities of creation, reveals as discretely styled. Light, as the fundamental presentation of information charged energy, mediates the projection stimuli for the contingent assembly of discernable entities of creation: *Quantum-Light-Cosmology [QLC].*

Concerning the atom, the above sketched power inflation bears this recommended light cone and spin quantisation [Fig.4,5,6]. B. SETTERFIELD, related to TROITZKII ET ALII, stands up for the independency of the quantitative value of light-speed mattering all space like and dynamical behavior of atoms, of molecules, of as well matter aggregations of each size, until the macro dynamics of cosmic objects.

Creation reveals two manifestations: a geometrical spacelike projection in the EINSTEIN space-time, ruled by gestalt-information coordinates, timeless entropy and selection markers [$x_5 = -i\varepsilon$, $x_6 = -i\eta$], and a timelike light speed mediated projection [$x_4 = -ic_it$]. According to EINSTEIN's geometrication of time effect [$x_4 = -ic_it$], the quantised light cones [c_i] condition the representation of concrete entities in space fractions [Fig.6].

Definition: we name space-fractions along the light-cone quantisation: S_0 = CIS-realm by c_0 = vacuum-surface speed [c_0 = 299729 km/s]; S_i = hyperspace fractions [i = 0, 1…u]. S_u = ground or p-prane state of metron; edging light-speed c_u ~ quasi-infinite. It is probably a border light characteristic: finite by the discrete structure of metron, but quasi-infinite compared with c_0 [TROITZKII estimated $c_u \sim \zeta * 10^{10} * c_0$][41]. With this edge-speed of the s. c. pilot-waves, which constitute the metron as fundamental energy substance, flavored in the knotted grid of PLANCK-cubes [Fig. 2], there may be bestowed the causal nexus of creation hidden in the hyperspace bottom *G4*. Compared with the CIS-EINSTEIN spacetime, causal connection functions quasi timeless. The mentioned NIMTZ-experiments may confirm this quasi timeless causation and information connection per hyperspace. We are remembered on NEWTON's mystery of absolute space.

All photons, particles, atoms, molecules, are rooted in this bottom hyperspace fraction S_u. Their basic spin fraction [boson-spin = $1h_u$; fermion-spin = ½ h_u; $c_u \sim \infty$] guarantees sharing this causal connection realm. So gravitational, electro-magnetic and information styled relations between created entities reveals as a quasi timeless one in contrast to all CIS-experiences. Of course, CIS-entities, sharing all hidden hyperspace light-cone

[40] Variationen-218-220.
[41] Others see Setterfield-2001,18.

and spin-fractions, are subdued to all S_i-contraints. On CIS-surface, described by *normal physics*, the EINSTEIN-causality is valid. The physicist DAVID DEUTSCH[42] explains the quantum split experiments with light beams by accompanying *shadow photons* of hyperspace stage. All mutual forces and reactions between particles, atoms and aggregations represent the destined hyperspace fractions. Hence quantum field physics, illustratively sketched in the FEYNMAN-diagrams, must be refined the hyperspace-quantisation way.

The envisaged quantum-light-cosmology [QLC], revealing the touched fine tuned hyperspace topology, obviously functions by strict conservation of geometry and energy-quanta, probably the ruling information household. The evident conclusion is, that each CIS-phenomena on the stage of EINSTEIN-spacetime has a hidden parallel feature in the S_u layer. As $[c_i{*}h_i]$ turned out to be the fundamental constant, the conservation of energy means the increase of light speed in the dynamical maintenance and the decrease of energy-quanta in the ponderous mass and gravitational representation. Going deeper back in the B.HEIM-projection-chain, we touch the information proposals of created things. Thus for instance, an atom has its integer dynamical and geometric feature by the in the metron encapsulated string appearance. Step by step, with fractioned time elapsing in the light-cones ($x_4 = ic_it$), the power expansion (fig.6) will happen by exciting the cloud of PLANCK-cubes until it pops up in the CIS-stage. The primordial expansion in S_u needs $t_u = d_{particle} / c_u \sim 0$ s. The appearance as CIS-atom presents the incarnation time of constituting particles $t_0 = d_{particle} / c_0 \sim 10^{-23}$s. This will be a stationary recreation cycle for the life-span of the atomic particles.

In other words: the originating of a particle, an atom, or any molecular aggregation into the CIS-realm of micro- and macro-cosmos to the experienced features, post-scribed by *normal physics*, needs no measurable cosmic time elapsing in the sense of ARP-NARLIKAR [MACHian effects by EINSTEIN-causality]. The projection-chain cosmology of DRÖSCHER-HEIM (Fig.1) focuses in the statement: matter originating in the fourfold Einstein-spacetime happens in the HEISENBERG-limits. The HEISENBERG-constraints follow consequently the harmonics key [$c_i{*}h_i$ = constant; $\Delta x_i \Delta p \geq 1/2 h_i{*}$ and $\Delta t_i \Delta E \geq 1/2\, h_i{*}$]. That sounds: against the border dimension S_u any birth-time will vanish by minimizing the HEISENBERG-swells [$h_u \sim 0$; $c_u \sim \infty$]. No birth-time is measurable even in S_0, our access realm for *normal physics*! We are touching the hyperspace dimension *G4* [Fig.1], where time and energy quanta faint in favor of a pure mathematically ordered information disposition. B.HEIM was asked for the chosen symbol *G4* for these immaterial mathematically required super-dimensions. He answered: "*G4 = GOD may know it*". Theoretical efforts are there really at its end.

The top conclusion of the projection-chain theory echos: all matter-birth of all thinkable galaxies in its rotation dynamics may be a spontaneous and simultaneous initial event onto the stage of EINSTEIN-spacetime on a cosmic time-marker 'T_{gal}' , induced by the named hyperspace causal hierarchy. The astonishing main clue reads: on the CIS-stage of our experience and normal physics one can not find any self-organization procedures for the dynamical galaxy disposition. It's outstanding, that all attempts to explain the galaxy distributions and cluster features the way of simulations in the big bang frame

[42] David Deutsch: The Fabric of Reality. New York 1997 p.44ff.

failed. Even STEVE HAWKING concedes the secrecy of origin[43] of galaxy maintenance, and the fantastic meta-galaxy pictures of the HUBBLE-Space-telescope do not help decipher this mystery.

A CIS-atom exists with inherent spin-stages $1/2h_0 = {}_1\Sigma^u \frac{1}{2} h_{1..i..u}$. We suppose, that hyperspace inherent lower stages of all particle presentations inclusive all mutual forces are in accord to the light quanta given. That's the challenge of s.-c. *dark matter* reality, on which cosmologists puzzle.

"It is a shadow universe that occupies the very same physical space as the familiar Universe but has no normal interaction with it other than through the force of gravity. We can imagine that the particles of shadow matter might form shadow atoms and molecules. There could be shadow rocks and plants, even shadow people, planets, stars and galaxies that would pass right trough our own almost completely unnoticed".[44]

So an atom has an intrinsic-hyperspace feature and a projected outer feature. This double EINSTEIN-hyperspace staging conditions the principle facility to fall back in an intrinsic state $S_{i>0}$. It seems a kind of reversal of the B. HEIM-projection chain. The atom may vanish in the hyperspace basics without violating energy balance or the spacelike dynamical feature (space coordinates, rooted in the metron address field, moving, rotating etc.).

In the SETTERFIELD-TROITZKII cosmic model all this modifying sophistications of behavior is stretched in the cosmic time arrow against the varying facilities in the HEISENBERG timespan [$\Delta t \geq h / \Delta E$]. Yes, an atom, an atom-molecule aggregate, a body, a baryonic entity, may suddenly appear and vanish in or out of S_0! The empiric realm of paranormics with its convincing testimonies shows a lot of classes of well documented phenomena. The shadow status' S_i are so real as the *visible* status (a metaphor for the access realm of normal physics) S_o!

So the mystery of vacuum/hyperspace is much more challenging and fascinating than the picture of a sea of randomly juddering PLANCK-particles. The hyperspace-shadow Universe is much more styled and differentiated in its quantised topology, than any the things averaging models will accept. Here appears a barrier for averaging and timely stretching ways in the affairs. The unbelievable fine tuned topology of hyperspace is rather the handling skill of GOD's initial and sustaining work. The creator may mock at some boldfaced entertainments of men. One remembers the spiritual focus of the old Biblical tale of the Tower of Babel.

B.SETTERFIELD, related to V.TROITZKII, had and has in vision: an orginal status of creation characterized by a primordial high value of generalized light speed and a sudden rupture and than an exponentially decrease to the present locally measurable light-speed value. Fig.7[45]:

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[43] Variationen: Note 311. "For myself, and most astronomers I think, to understand the origin of galaxies would seem for a greater significance than speculations about the instant of the Big Bang, which can probably never been tested." (New Scientist, Oct 1993).

[44] Michael Riordan and David N. Schramm: The Shadows of Creation - Dark Matter and the Structure of the Universe. 1991.

[45] B.Setterfield: Geological Time and Scriptural Chronology. 1987. Fig.1.

General Relativity (GRT) in its cosmic solutions is based on a set of postulates, of which the statement of smearing out all energy-matter content of a physical Universe to a superfluid bubble with average energy-matter dense, is the bearing presupposition. Only this ontological outreach gives access to a special kind of mathematics of differential equations. The metric of the s. c. cosmological principal is an additional one. TROITZKII follows strongly this set of postulates, giving indeed up the by EINSTEIN and adepts stressed constancy of light-speed, seeing the deeper correlation between light-speed and transit-medium.

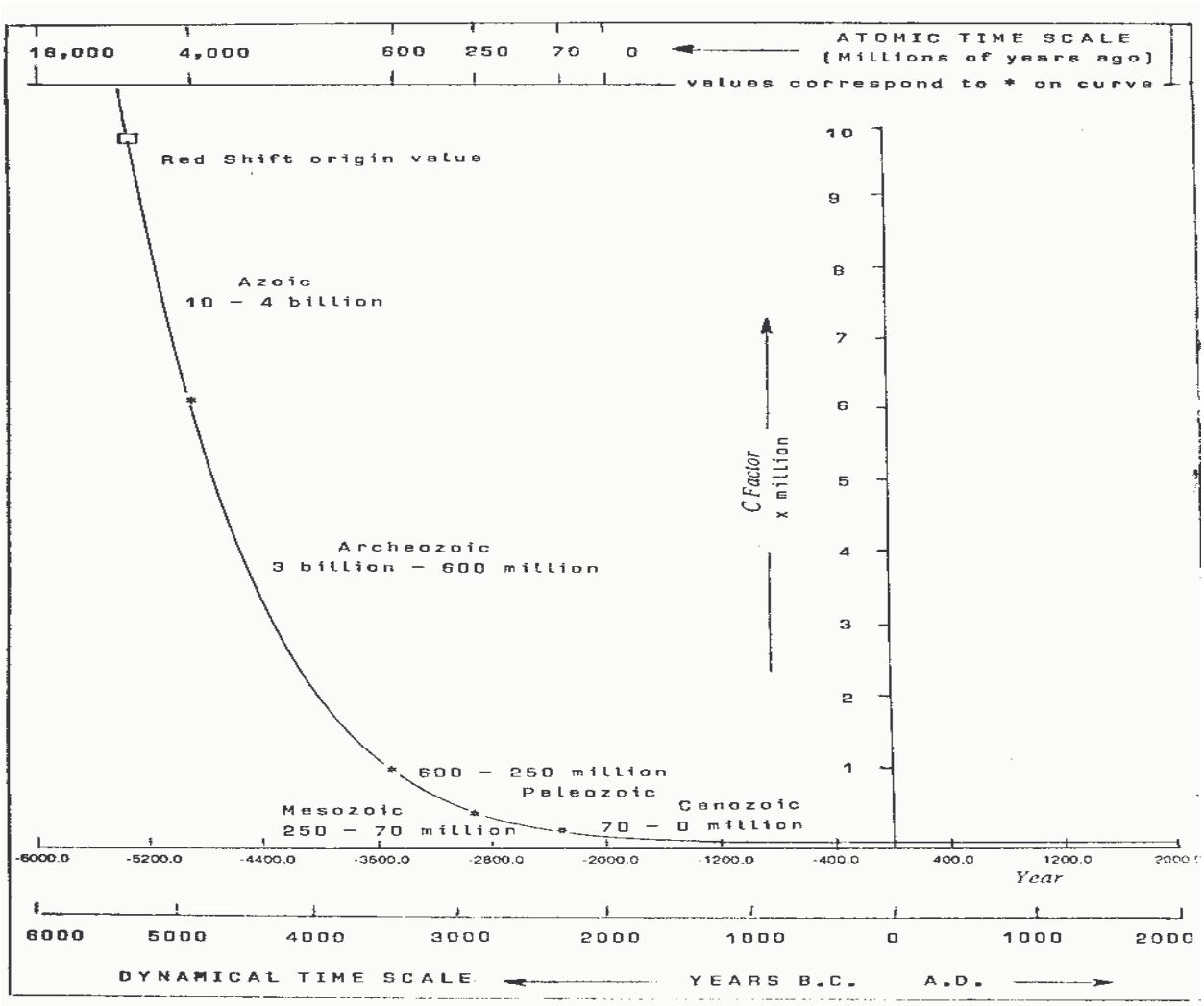


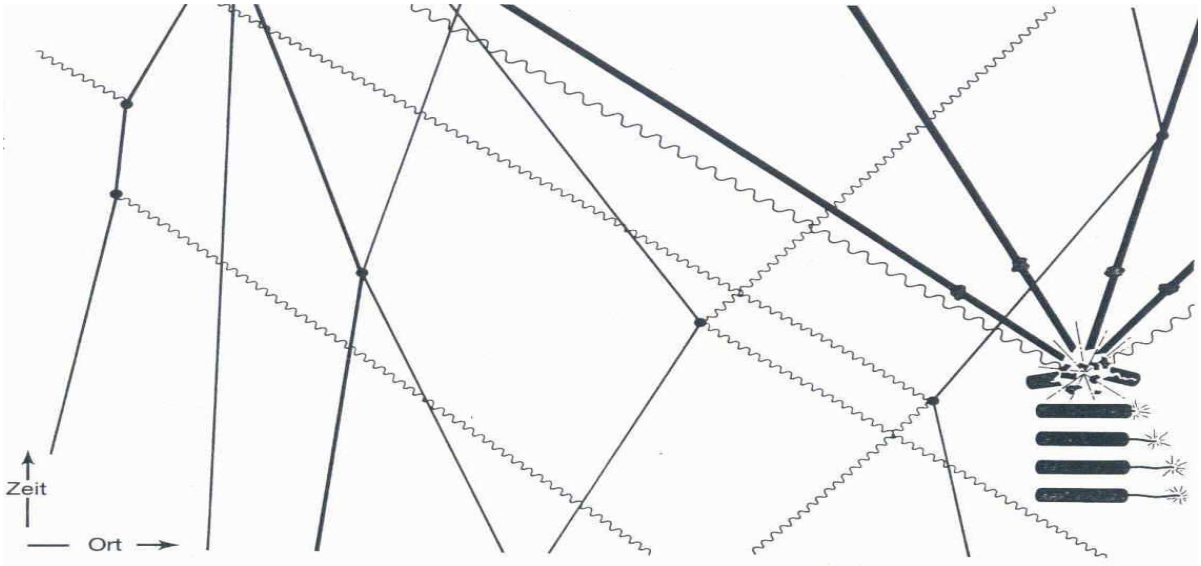
Figure 7

One century later we are massively confronted with the mystery of hyperspace. The envisaged multidimensional topology and the hidden immense amount of zero-point-energy [ZPE/ZPF], and the baryonic and bosonic dark matter features on quantised light-cones and spins, makes it just impossible, to hold simple cosmic postulates of the start ramp of the meanwhile expired 20th century. A very challenging topology of the fabric of space, rooted in entelechy and information coordinates, structured in sub- and hyper-space realms, prevents smearing the things out to an energy-matter-balloon, handled as a superfluid, on which the analogous mathematics of hydromechanics is applied.

2.7. Some steps of Quantum – Light – Cosmology [QLC]

On cosmic scales also, one can't smear out the demanding hyperspace topology and handle the whole – the endless mystery - in average terms to apply mathematics. So the problem of light-speed, really depending on and reverse constituting the transit-medium, will not be handled in general dense-terms as SETTERFIELD-TROITZKII tried to do. The basic relation $c^2 = 1/ \varepsilon*\mu$ will, as above demonstrated, be fine tuned by the harmonics quantum key to $c_i^2 = 1/\varepsilon_i*\mu_i$.

According to the start restraints, to handle not the *whole* as scientific object, - what ever it may be -, we may cautiously follow a s. c. world-line of a light ray the H. WEYL-way. There will be enough surprising hints to detect. As TAILOR-WHEELER cleared up, the cosmological task to win insight in parts of physical behavior is to follow relations of world-lines of baryonic and bosonic entities in their bundling and separations in space-time. No other artificial fundamental coordinate system is needed[46] [Fig.8].



Let us exemplarily look at a cosmic light beam from the emission source onto a possible detector screen. The interpretation of the redshift periodic quantisation by W.G.TIFFT et al. focuses in the causation of redshift patterns, by the difference of physical status of emission source and absorption set [Fig.4/9]. We can accept this in principle, but going the way of hyperspace-topology.

At T_{gal} [the birth scenary of galaxies] a new born atom aggregate of a far distance d >> c_0*T_{gal} emits a light ray the reasoned quantised way. Light transmit through vacuum-hyperspace functions by changing between electrical and magnetic fields in the special strata S_i with the quantised $c^2_i = 1/ \varepsilon_i\mu_i$. The metron grid with the inherent CALABI-YAU modes conditions the special strata speed and withstand. On the wave frontier, steadily all quantised light fractions will be excited. Meeting an atom, a photon of light cone S_i will be absorbed of the proper instrinsic spinstate S_i. This S_i circumstance emits it back in all quantum steps and in the strata to the side S_0 with redshift fractions.

[46] Edwin F.Taylor / John Archibald Wheeler: Spacetime Physics. 2nd ed. 1992. Fig.5.13.

When our detector of the atomic status S_o, inherent all substatus' S_i , absorbs a photon with c_i , the emitted fraction c_0 , the only detectable one for our physics, will be redshifted. The vacuum/ hyperspace topology matters for the redshift amount and periodicity. A further developed harmonics theory may clear up details, a worthwhile field for NOBEL-prizes!

The original light quanta of cone c_0 can't reach the screen. A quantum of cone c_i may meet the screen. The measurable light fraction now with c_0, emitted from screen-detector, or analyzed and in its characteristics stored by modern CCD-technique[47], shows the discussed redshift patterns. The quantised emitted photon with spin $\Sigma_i h_i$ bears the energy $E_{ph,i} = \Sigma_i h_i \nu$. The with c_i by the screen absorbed fraction holds the energy-part $E_{ph,I-u} = \Sigma_{i..u} h_{i..u} \nu$. The redshift quantum may be precisely calculated via wave-physics from the energy-difference ΔE between the emitted and partly absorbed photon.

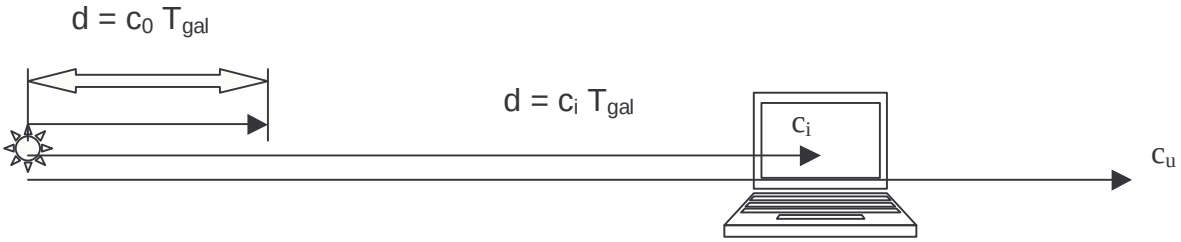


Fig.9

B. SETTERFIELD displays an exciting connection between the long known RYDBERG wave structure-constant and the observed redshift quantisation. So a basic harmonics key is found. The given basic z-quantum (z_q) = $8.9114*10^{-6}$ may be confirmed the way above sketched. The envisaged quantum light-cone cosmology [QLC] may give a more elegant explanation for the quantum periodicity than the suggestion, that basic quantum jumps accumulate to special peaks during light-transit through vacuum-space.

We must face another mystery of hyperspace: the hidden baryonic and bosonic shadow worlds. At the first look it seems Biblical wisdom. But at the second glance, it is very confirmed by the critical collection of s. c. paranormal phenomena, and at the last gander by the physical reflection on the amount of s. c. dark matter. If there are really shadow worlds, on which the famous cosmologist GEORGE GAMOW even in popular booklets reasoned[48], and the term *Gamow-worlds* brought about, we must look for reasons, why we can not directly *see* it, naturally in a wider sense. Light seems the most subtle medium for the creator, to handle and rule His creation and secure His own majesty and authority against the often boldfaced creature human.

Coming down to more physical like reasoning, we question the obvious fact, that dark matter do not affect by electro-magnetic means, the light medium in a wider sense, our atomic styled bodies. But than again gravitation seems a trough-going force, affecting all entities, from light-quanta up to the baryonic units. NEWTONian and EINSTEINIAN [GRT] gravitation formulas describe the mutual effects up to the picture of space bowing, but not the stimulating cause. So the old suggestion, that gravitation may be dominantly a screen

[47] Calledge, David (Ed): The Art and Science of CCD-Astronomy. Berlin-Heidelberg-New York 1997.
[48] G. Gamow: Mr. Tompkins im Wunderland oder Träumereien von c, g und h (original: Mr. Tompkins in Wonderland). Wien 1954.

effect between all created entities, remains still alive: pressure induced gravitation [PIG]. For our purpose the statement will be enough: gravitation holds for the Cis- and hyper-space-part of creation. The negative gravitation potential -Φ balances the whole positive energy-mass-potential of creation. The German cosmologists, brothers KARL and BERNHARD PHILBERTH[49], concluded: all oneself presenting created entities in the space-time put a gravitational equivalent on their energetic-mass confinement, a kind of retraction to their origin by the negative gravitation potential -Φ. Relative to the creation horizon energy-mass and gravitation force are zero. That's the old Jewish Zim-Zum-doctrine, that the creator perpetually gives room by active effort and self-restraining in favor on the relative autonomous existence of created things. That's in a good consensus on the modern projection theory of DRÖSCHER-HEIM.

Concerning shadow worlds, light strata cones mark out the outreach of quantised electro-magnetic fields S_i. The atom maintenance in a body sphere may be reduced to the light-cone realm $S_{i..u}$. If atoms in a hidden shadow state emit light rays, they remained reduced to $E_{phot,\ i..u}$. Propagating the light-wave-frontier through hyperspace, the steadily frontier-emission and the absorption and re-emission of met atoms, remains in the restricted cone sections. Atomic entities in the S_0-stage, touching our normal experience realm with our normal physics, may also absorb and reemit light of the reduced state by its intrinsic spin-fractions $S_{i\ ..u}$. Because there is from the start up to any absorption no light fraction S_0 mediated, we can't *see* or electro-magnetically detect shadow matter. Thus obviously the redshift of cosmic light-spectra is hardly caused by relativistic DOPPLER-effects, rather than a proprium of the wonder of light itself.

ALBERT EINSTEIN was the first physicist in the beginning of the last century, who dared with the new means of GRT to propose a physical model of the whole energy-matter of a s.-c. *Physical Universe*. By his field-equations of gravity, solutions for the whole dynamical status of the physical world seemed comprehensible. Special solutions led in the long run of the past century to the mainly accepted standard version of big-bang-imagination [SBB = Standard Big-Bang].

Surprisingly we have on the start to the new millennium a quite another situation of astronomical, astrophysical, geological, biological data and theory issues. But this new situation of cosmology touching sciences is remarkably hidden for the public. We spoke on the very mystery of vacuum/hyperspace, embedding all entities of creation. The space research by super detectors and satellites brought an indigestible amount of data out of our earth, sun-system, our galaxy, the local group of galaxies where we are part of, the endless seeming meta-galaxy. Astrophysicists daily receive such an amount of data of satellites, inclusive the HUBBLE-Space-telescope, that only a small part of it may be really fruitfully exploited. It is like in biology, were the deciphering of genes chocked the scientists by the amount of demanding data, which they can't handle the used molecular-chemical ways.

Just like the hyperspace, the meta-galaxy reveals as a deep mystery. One sign for the open situation in astrosciences is the provoking publication of F. HOYLE-G.BURBIDGE-

[49] Variationen.. 5.2.2.1. Das "Urnukleonenmodell" der Gebrüder Bernhard und Karl Philberth, 58.

J.V.NARLIKAR: *A DIFFERENT APPROACH TO COSMOLOGY*[50]. The steady state cosmology [SSC] is more and more strengthened against the conformists of big-bang [SBB] by the groups of W. TIFFT, H. ARP, T. YAAKKOLA et al[51] and the named authors. One formerly used main argument for big-bang [SBB] and against a [SSC] was that of stableness. There should not hold an equilibrium for the distribution of galaxies and their peculiar motions under the force of gravity, only in an expansion scenario. But this argument is now multiply contradicted.

For the mentioned experts, hot big-bang cosmology has totally failed. An impressive picture of their inciting book may characterize the provoke in short[52] [Fig.10]:

This is our view of the conformist approach to the standard (hot big bang) cosmology. We have resisted the temptation to name some of the leading geese.

2.8. Quantum – Light – Cosmology - Further Hints

It is in no way may intention to battle for a special model of the whole astronomical and astrophysical scenario, e.g. like [SSC]. That's excluded by definition of the task. But from a general standpoint of *theory of science*, it is obvious, that the rapidly increase of observational data does not underpin a ripe picture of the physical cosmos, neither concerning origin, nor present or futuristic behavior. In sum, the inscrutability is increasing. The well known philosopher of science, WOLFGANG STEGMÜLLER, notes on cosmology: the nearer the objects of research to our observation point earth, the less sharp the knowledge in astro- and geo-science[53]. The earth history and currently feature, e.g. magnet field, atmosphere, catastrophic history, interior structure, inclusive the surrounding sun-system disk, remains hardly understood. The astrophysicist N. PAILER[54], analyzing the new satellite data, states of our sun-system: it may be old or young, nobody knows it facing the disparate observations.

Cosmology, also in its more physical aspects, seems no strict natural science in a classical sense, comparing the research realm of normal physics. Hence the way of heu-

[50] F.Hoyle, G.Burbidge, J.V.Narlikar: A Different Approach to Cosmology – From a static universe through the big bang towards reality. Cambridge/GB 2000f.
[51] H.C.Arp et al (eds): Progress in New Cosmologies : Beyond the Big Bang. New York 1993.
[52] F.Hoyle, G.Burbidge, J.V.Narlikar-2000, 188.
[53] Wolfgang Stegmüller: Hauptströmungen der Gegenwartsphilosophie, 2.Bde, Stuttgart 1979. Bd.2,621f.
[54] Norbert Pailer: Geheimnisvolles Weltall. Hypothesen und Fakten zur Urknalltheorie. Neuhausen-Stuttgart 1996/2. Im Zeichen der Schöpfung. Vom Innersten des Atoms bis zu den fernsten Galaxien. Stuttgart 2000.

ristic reflections to understand basics of creation, is required. The field is very open and gives much room for rational considerations. Such dared considerations do not claim to be proofs for this or that. They may indeed have in this tenderly state of affairs of our knowledge a fair competition range to other scenarios as standard big-bang [SBB], steady-state [SSC], quantum-temporal-cosmology [QTC]. So for instance the issues on quantum-light-cosmology [QLC]. The stated theological constraints are additionally of weight besides pure physical accommodating.

The curious experience of 21st century reveals, that increasing data means parallel decreasing clearness of the whole and vice versa increasing the cosmic mystery. The hyperspace projection theory shows, that nobody can handle a CIS-cosmology, reducing the affairs to CIS-atom aggregations and CIS-radiations, the standard big-bang method. The deepest cause to prevent a merged theory of general relativity [GR] and quantum theory [QT] may be rooted just there. A first way out of the dilemma reveals the highlight of multidimensional and the immaterial information aspects incorporating projection hypothesis [PCC = Projection-Chain-Cosmology]. So we knocked finally on the light secret, a constituting hyperspace phenomena.

Let us go along the astonishing light affairs! We concluded, that the wonder of light propagation in multidimensional creation space popped as quantised the harmonics way. A concrete application in space cosmos was touched by following of a light ray, from a cosmic source unto a man handled detector [fig.7]. The redshift periodicity reflects the same harmonics master plan as the quantisation of light-cones and the PAULI-law of possible electron-orbits in atoms.

The on earth-detectors received and analyzed light-spectra with the redshift-quantasition makes known a distinct relation between distance of source and detector. The sharp quantasition law of redshifts guides on the first glance to the question: are galaxies really established on shells surrounding our observation standpoint?[55] There may be a more consequent conclusion the way of [QLC]: the periodic redshift amount stands in a wider sense for distance of the light-source. So a kind of quantised HUBBLE-law is valid with a quite another foundation than relativistic DOPPLER-shifts. We make world-view bounded but rational suggestions. These are at least so rational as the standard big-bang [SBB] metaphysics[56]:

I] The whole galaxy-set, meta-galaxy inclusive our milky-way as well as all mutual radiation bridges, free particle distributions and induced magnet fields, and other secondary following physical features, originated as hyperspace projection simultaneously and spontaneously at initial time $T_{gal,}$ founding our life light-sphere S_0. All this may have a primordial hyperspace prehistory and configuration, remaining a not accessible mystery for our S_0-physics. The obsessed EUCLIDean-flat space structure is presented by the primordial hyperspace *metron*-grid.

I guess this proposal, following the projection energy-matter-issue of DROESCHER-HEIM [PCC], a more rational big-bang scenery than the irrational starting point in the standard expansion scenario[57]. The source of the immense amount of the galactic energy-matter of the status S_0 is in the [PCC] consequently the quasi unlimited ZPE/ZPF of

[55] N.Pailer-1996, 42f.
[56] Variationen, 5.,44ff.
[57] S, above, note 9, H.Goenner speaks of mathemaical fairy tales – Variationen, 55.

the *metron*-Planck-substance. In the ARP-NARLIKAR -theory of steadily matter creation and vanishing [SSC], they insist on an analogous cosmic energy balance. Likewise [PCC/ QLC] do not hurt any conservation principle, but favors the *downward causation* [will-information-energy-matter] principle against the *upward self-organization* principle of strong naturalism, the background of standard big-bang-cosmology.

Suggestion I] summarized states: we receive on our observation point on earth light-cone quantised radiation, emitted of galactic sources since T_{gal} or later. We can detect a fascinating energy-matter scenery and have to interpret it the way of quantum-light-cosmology [QLC]

II] The contingence catastrophic matter-projection on S_0 at time T_{gal} as a kind of breakdown of the primordial metron-space behavior led to an equal average distribution of galaxy-matter-spheres with all its dynamics. So our existence sphere S_0 has two edges: the incomprehensible macro-matter sphere of galaxy dynamics and the incomprehensible tiny *metron* sphere of PLANCK-size order. Man-made cosmology functions between this two-side mystery, which is not to cancel out by physics or science in general [Jer 31,37]. A cosmology of the whole of creation is principally excluded.

The on T_{gal} initiated energy-galaxy-matter dynamics may set also conditions for the forming of new stars with age < T_{gal}, which are than a stationary S_0- and no projecting result out of hyperspace. The in some directions of sky observed high energetic γ-outbursts may be conform with H. ARP[58] a sign of zippy and active hyperspace background in the macro realm, similar to the CASIMIR-effect of virtual particles in the micro realm. ARP-NARLIKAR name this PLANCK-particle bangs. The surfaces or interfaces of ubiquitous hyperspace on the macro-edge just as on the micro-edge are very alive and veiling the hyperspace mystery.

B. SETTERFIELD - H. PUTHOFF showed this alive vacuum/hyperspace-surface as a very condition for the existence of perpetual atoms, and I add: a very condition for all created entities in this eon-sphere $S_{0,}$ perpetually projected out of hyperspace.

Suggestion II] summarized states: in analogy with equilibrium steady-state- cosmology [SSC], we have an equal average galaxy distribution as meta-galaxy, but in contradiction to [SSC] we postulate all galaxies with its mediating structures of the same birth at eon-age T_{gal}. The same-origin-age-hypothesis does not exclude any detectable secondary order in the galaxy establishment. For the principal question of light structure this interesting theme does not matter.[59]

The intuition of shells around an observer in galaxy-space urged on periodicity of reddened spectra, e.g. on earth but equal for all standpoints, does not result of galaxy shells, but of the quantised light-fractions received.

The steady-state equilibrium models [SSC] neglect the inducing of redshifts by expansion effects and thus a deduced simple HUBBLE-law z = f(distance). In [SSC] the representatives derive intrinsically caused redshifts, depending on the age of galactic emitters and from there also a HUBBLE-correlation, critically discussed by ARP[60]. For our principal reflection we will abstain from red- and blue-shifts from all thinkable covering over

[58] H. Arp-Seeing Red, 1998, 129ff.
[59] Nowadays even an average distribution of galaxies on cosmic scales is doubted: Peter Coles: An unprincipled Universe? Nature, Vol 391, January, 1998,120.
[60] H.Arp-Seeing Red-1998, 235.

peculiar motions of galaxies and galaxy clusters relative on the observation screen. So the empirical redshift-peak periodicity has of course its scatters.

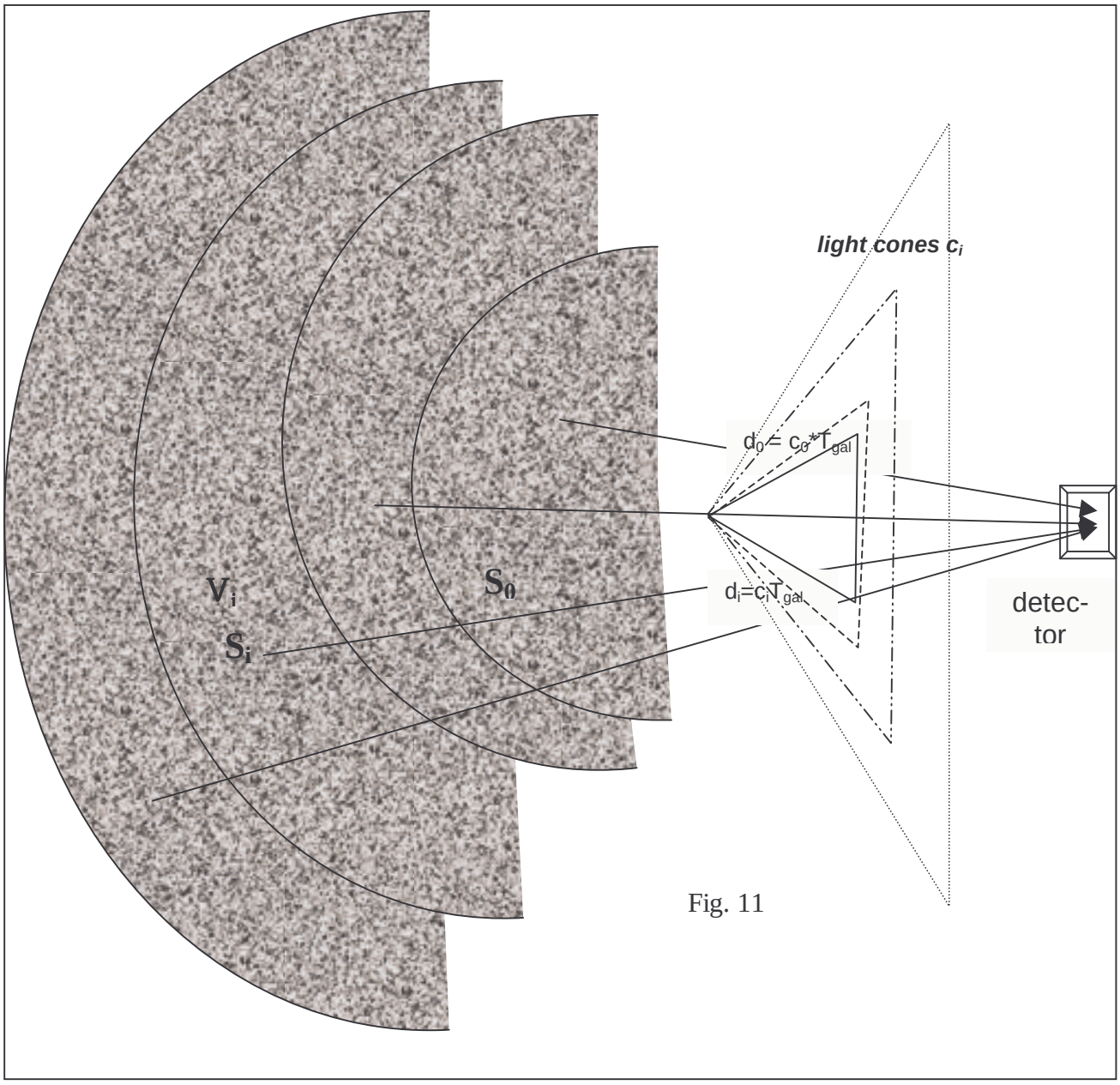


Fig. 11

[QLC] offers another correlation between z and distance of emitter: There are shells for the observer with distance radii $d_i = c_i * T_{gal}$. The nearest observer shell $d_0 = c_0 * T_{gal}$ generates indeed a spectra-fraction mediated by c_0 with no systematic redshift [$\Delta E_{ph,i-0} = 0$]. But as the [SSC]s show, there are high redshifts also in the Local Cluster, embedding our own galaxy.

Concerning the wider shells (fig.11), the middle redshift counts from the energy defect of shadow photons [$E_{ph,i} = h_i\nu$], $\Delta E_{ph,i-0} = E_{ph,i} - E_0$. The redshift law in general matters: $z_i = f(\Delta E_{ph,i-0}; V_i)$; V_i = shell-volume between d_i and $d_{i+1;}$ fig.11). Experts may fulfill the mathematics. So one can gain a multiplicity distribution of redshifts with an increasing tendency for higher intrinsic redshifts in the furthest shell, correlated with fainter galaxies at the optical border. Hence in the multiplicity distribution reveals a kind of HUBBLE-law. Nevertheless intrinsic high redshifts are, as ARP and other [SSC]-adepts strengthened,

also found in nearest galaxies of our Local Group. That's also a theory conform expectation of [QLC].

The new interpretation of the reddened spectra of cosmic light-emitters as intrinsic atomic phenomena may be the deathblow of bubble big bang cosmology [SBB]. W. TIFFT stated, urged by his observation results: *"Cosmology will never be the same again*"[61]. Hence [QLC] forces itself from two sides: the observation realm and the hyperspace conditions for energetic and matter phenomena.

G.F.R.ELLIS provoked with a quit unconventional cosmic concept in the seventieth the world of experts, demonstrating that the main s. c. observational pillars of the Standard Big Bang [SBB], namely the redshift and the microwave background radiation [cmb] interpretation, are nothing else than a-priori postulates to justify the LEMAITRE-FRIEDMAN-WALKER-solution of the EINSTEIN-equations. ELLIS sketched a flat universe as an uncountable set of cosmic toroidal cells with two poles, between a steady matter-flow happens. One pole exists as a hot plasma, birthplace of ejected young matter, which flow against the cool pole. Stable conditions for life could happen only in the surrounding of the hot pole. What a contradiction on the s. c. cosmic principle! Against the cool counter pole the matter will decouple and radiate out. The model gives a convenient interpretation for the multiplicity of redshifts of galaxies just as for the background radiation. The sophisticated topology leads by observation to a repeating of galaxy images. Thus many images of each galaxy will be seen[62]. At each time the galaxy is seen at different age stage. The redshifts, the area distances, emission and absorption feature are different. The concerned galaxy is seen consequently in a different direction. Hence of course the observational identification shows difficult.

At this point we come back to the above touched empiric picture of [GLC] [Fig.11]. It is a strong consequence of quantised light cones and the described emission conditions, that we should see the same galaxies many times induced by light-cone quantasition, mainly depending on their peculiar motions related to our observation point. Their redshifts should be quantised according to the periodicity law, observed and formulated by the groups of ARP and TIFFT. Is there really any empiric confirmation? Surely, similar with the ELLIS-topology, we expect the same observation and identification difficulties.

H.ARP focused in his observation period from the sixtieth on mainly on the images of unusual galaxy groups and clusters. What he detected and in his steady state concept [SSC] interpreted, namely repeating galaxy features, was so much contraire to the big bang oriented astronomy establishment, that he was craftily hindered to publish his results. "Seeing Red" is an impressive testimony for the unworthy situation in his lifespan as an observational astronomer. As I can grasp it, the main challenge was his interpretation of special galaxy arrangements. He focuses on a lot of galaxy features, which seems the result of ejecting younger galaxies, named daughter galaxies, from the central mother galaxy as a very active quasar. Precise observations of the redshift status of those offspringing younger galaxies demonstrated a higher redshift, the younger the daughter ejections was suggested. Above I critized the to simple ARP-NARLIKAR combination of age and redshift-value. But ARP's challenging detection was the periodicity law of redshifts.

[61] Variationen: 6.2.,78ff.
[62] H. Börner; The Early Universe – Facts and Fictions. Heidelberg-1993, 130ff. Variationen, 199. P.C.W.Davies: Cosmic Heresy? Nature,Vol.273,1 June 1978.

The suggested offspring galaxies presented no slight redshifts, rather than this clear periodicity. Further ARP showed up by discussed examples, that those offspring cluster families lie in a plane with a special inclination to the observer in a stepped row of distances.

[QLC] expects to see those similar features. The peculiar motions of galaxies related to the observer's standpoint, may lie in an inclined special plane repeating the same galaxy image with quantised redshifts. [QLC] denies the direct origin-age-law of SSC. Yet seeing the same galaxy image repeated in a peculiar motion plane, [QLC] predicts detecting younger emission states with higher redshift steps. Surprisingly, that's just what ARP in his collected material demonstrated: the younger, the redder! But in contrast to ARP's interpretation following his theoretical issue of [SSC], there should be in accord on [QLC] no steady repeating birth of galaxy offspring. The fascinating galaxy plane clusters with repeating images are due to one common offspring of all galaxies at the contingent initial origin $T_{gal.}$ and the following affairs. Seeing stepped higher redshifts in the repetition scenery of one galaxy signs indeed a consensus with ARP's observations.

Since H.ARP observed in 1961 some very fine structures like rings encircling certain elliptical galaxies, this phenomenon seems very confirmed by recent observations. The modern CCD-technique leads to the detection and computer-analyzes of such fine basic structures of galaxy features. It seems nearly a common underlying makeup at least of elliptical galaxies. How do the shells form? One tries in the naturalist [BBC] to explain it the way of merging galaxies[63]. [QLC] suggests rather a quantum-light-phenomenon, resulting from initial galaxy birth conditions at T_{gal} and the further evaluation in eon's time.

These loose remarks on observational circumstances are done under the sureness, that no recently strengthened cosmic model can suitably interpret the origin and complicated behavior of the galaxy scenery. [QLC] seems a fruitful competitor for understanding some shapes of the maintaining mystery of meta-galaxy. Grasping the whole isn't granted to man!

To mark once more the obvious state of affairs concerning the part of observational empiric cosmology: the huge amount of collected and analyzed dates does neither guide to the question of origin nor an plausible universal age. [QLC] excludes those questions and answers by its very double quantum confinement. 'T_{gal}' demonstrates as a contingent constitutional initial episode for *this eon*. Biblically it may be understood as God's act of driving out the first men-pair and their creational life-conditions of paradise. With scientific skills of this eon you can't go beyond this swell, the dilemma of historical astronomy and astrophysics. [QLC] lets all this questions respectfully open. A Hubble-Space-photograph [Fig. 12] invites to marvel at the sky edge of creation.

The nearly as isotropic and homogenous measured ubiquitous background radiation [cmb] with its long-wave PLANCK-spectrum around the minimal temperature of 2,7 KELVIN, founds its theory conform interpretation in all cosmologies [SBB, SSC, QTC].

[63] F.Combes, P.Boisse, A.Mazure, A.Blanchar: Galaxies and Cosmologies. Berlin-Heidelberg-New York-2002, 99ff, Shells around Elliptical Galaxies, 211ff.

[QLC] accepts this phenomena as an accompanying projection result at $T_{gal,}$ remaining stationary present[64].

Fig.12

The scientific situation in observational astronomy, concerning the deeper understanding of the plenty of fantastic and demanding dates in cosmological frameworks, turns up very open and competitive. The present competition of urged conceptions astonishes. Indeed, not the plenty and feature of observational dates found the theoretical cosmic concepts. Favored models are postponed justified as not in contradiction with observational data. Independent of favored cosmic concepts the interpretation of observed data in astronomy and astrophysics is loaded with a package of uncertainties[65]. The not ending expert battle on the by the groups of ARP and TIFFT presented and expounded data, is like a demonstration of this mentioned open state of affairs in astro-sciences. In this sense we are very optimistic that the sketched [QLC] will be neither empirically nor theoretically in contradiction to confirmed CIS-physics and astrophysical observations in the realm S_0, from which we have only a restricted access to the cosmic reality.

Do we really gain compelling insights by observed data in the age of any cosmic object? The standard big bang cosmology [SBB] derives a cosmic scenario age, *big bang – present,* via the expansion feature and the theory-adapted HUBBLE law. The ear-

[64] Because there is no in laboratory producible comparable physical radiation, one can't count for a redshift the normal way. Nevertheless one can compare the Ultra High-energy Cosmic Rays as the last provoking phenomenon in observational astro-science, understood by [SSC] as PLANCK-bangs, with [cmb] and calculate from the spectrum-difference a [cmb]-maximum redshift z_u. That means, [cmb] could be understood as an echo of primordial and ubiquitous PLANCK-bangs at T_{gal}. This way TROITZKII calculated a primordial initial light-speed for $c_u \sim \xi 10^{10} * c_0$, for the S_0 experience realm practically infinite. In [QLC], where we accept since T_{gal} a stationary ground-situation, the [cmb] on the one wing of cosmic light spectrum with the ultra-high-redshifted [cmb], marked z_u, and actual ultra-high-energy-radiation on the other wing, may be understood as a surface perforation of the zippy hyperspace activity in the bottom string membrane or metron grid S_u [$c_u \sim \infty$; $h_u \sim 0$].

[65] Börner-1993, 120.

lier EINSTEIN-cylinder solution of his equations in common with the SSCs, rather gives the stationary picture of an unlimited energy-matter course of action.

An expected objection may be: however we can fix a star age by its physical status. E.g.: our sun presents as a fusion's reactor a measurable ratio of hydrogen: helium, from which one can calculate on its mass parameter its ignition time and its futuristic physical behavior. In general said, star-physics is very well developed from initial forming procedures onto expected end scenarios as super nova explosions, white or brown dwarfs, or even black wholes. Star evolution is fine tuned simulated on computer programs. Armed with this precise evolution key, one can test observed stars in the HERTZSPRUNG-RUSSEL-diagram, a short graphic abbreviation of the generally known evolution dates of stars. A special star can be pinpointed in its life status in accord of its measured parameters. Hence it seems compellingly rational, to estimate star ages in billions of years. Consequently star ages require minima ages of the cosmic frame events. So of course all debated physical cosmologies respect star ages and additionally suggested galaxy evolution scenarios.

Is [QLC] sustained by [PCC] also restraint by this minima time conditions to be rational? The outstanding initial condition the way of [PCC], the simultaneous and ubiquitous projection events in the constraints of HEISENBERG-uncertainty time swell, leads to the unique consequence, that one can't calculate the contingence initial time T_{gal} by recent observation S_0 -parameters. The plausible objection may be: but our sun in its known physical conditions requires a minimum age of our sun-system! Why so? Our sun emerged at T_{gal} in a developed stage, caused by a hidden hyperspace projection chain, which lies beyond our S_0-phyics. The top information-energy-matter-theory of DROESCHER-HEIM shows this supposition as at least so rational as other cosmologies with its veiled metaphysics.

I take a plausible objection against [PCC&QLC] serious: GRT (General Relativity Theory) with its applications in physics and astrophysics do justice itself in so much cases of observational confirmation, why do away with its elegant mathematical cosmic solutions the [SBB] way? One vigor of the DROESCHER-HEIM multidimensional quantum-field-theory [PCC] shows itself in the last result, that GRT and the DIRAC-form of quantised EQD [Electro-Quantum-Dynamics] reveal as special cases of the theory. Concerning GRT, its application as a precise approach in the macro-realm of our S_0-eon between T_{gal} and the present, post-describing the gravitational scenery in astrophysics, stands well. The dominance of stationary run of things combined with the approach of continual effects in the macro-world guarantee successful applications, e.g. the bow of a light-beam in a gravitation-field, counting the SCHWARZSCHILD-horizons of mass-aggregations, handling gravitational features of black-wholes or the cosmic radiation impacts on earth. Also for *this eon* between T_{gal} and present, the surface-value of light-speed c_0 holds as an approximation. General reflections on the basics on GRT show, that a constant value of 'c' is no strong condition besides the axiom, that 'c' is very independent of the motion of the light source, being a characteristic of medium, especially vacuum/hyperspace design. For the fourfold EINSTEIN-spacetime also the space-like time-vector holds, independent of the

empiric value of 'c'. Hence all fine-tuned differentiations of [GLC] do not hurt [GRT], [GRT] remaining in its accommodated application realm. [66]

Yet there comes up arrogance of naturalistic scientists: smear out the cosmic mass to a bubble fluid and handle it the hydromechanics way. To use infinitesimal mathematics and handle '0' and '∞' is attempting the Creator. Integrating $s = \int_{-\infty,0}^{\infty} f(s)\, ds$ and $t = \int_{-\infty,0}^{\infty} f(t)\, dt$ in a cosmic concern, demonstrates as no neutral pure mathematical operation. Why? Because T_{gal} constitutes as a time swell for CIS-physics and infinitesimal '0' outdoes the very mystery of HEISENBERG-limits at each spacetime-section and suppresses the ubiquity contingent influence of hyperspace. All in average stationary running energetic-matter affairs are steadily accompanied by inducing immaterial subspaces, a central consequence of [PCC]. In favor for the normal running of creation - etsi deus non daretur (as there were no acting God) – the contingent vectors are normally latent and only particularly activated, e.g. at T_{gal}. God retrains Himself in favor for His creatures and gives gently room for naturalistic cosmology, even in the gestalt of [SBB]: the Jewish Zim-Zum. No one is pressed to respect an aware Creator, one nobles of the Creator Himself. [PCC & QLC] on the other hand respect both the Creator in his absolutely authority and freedom against his creation!

A further striking argument against a bold [SBB], exhausting CIS-GRT, stands up by the embedding of all created entities with its life-dynamics in the vacuum- hyperspace. We underlined with emphasis the ratio of CIS-energy-matter to TRANS-hyperspace-energy-matter as at least 1: $10^{100..?}$. Because gravitation shows as a through-going force via all CIS- and vacuum/hyperspace-dimensions, all pure CIS-Cosmologies must fail. Understanding galaxy features and behavior leads to the embedding-problem in hyper-space-dark-matter, which remains really a complete mystery for galaxy and intergalactic physics and restrains principally cosmological endeavors on the whole[67].

The famous ST. HAWKING uses in his sketched *cosmology without borders of space and time* a clever trick[68]: he uses the imaginary space-like time coordinate of Einstein-spacetime (x_1, x_2, x_3, x_4 = - ict) [symbolical + + + -], to transgress the mathematics way in an abstract imaginary vector-space, where space and time borders vanish on pure open probabilities. From here he comes back to [SBB] in bordered cosmic-time by big-bang, as one possible solution out of the plenty of solutions hidden in the abstract vector-space. His populist message[69] - *there is no logical place for an act of creation and thus no Creator needed* – is meanwhile contradicted with competence.

From the side of EINSTEIN space-time, presenting our experienced eon, the wider quantum-field-theory of DREOSCHER-HEIM [PCC] introduced three imaginary coordinates: x_1, x_2, x_3, x_4 = -ict; x_5 = -iε, x_6 = -iη [symbolical + + + - - -]. Going according HAWKING the imaginary mathematical steps deeper on the projection chain [Fig.1], and touch the

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[66] D.Russel Humphreys: Starlight and Time – Solving the Puzzle of Distant Starlight in a Young Universe 1994ff. D.R.Humpreys tried to solve the time-horizon-problem by demanding sophistications of GR. I had the pleasure to discuss his issue and results by case of a visit in my Institute in Baiersbronn/D in 1999. I urged to take account of B.Heim's progress and reflect the application realm of GRT as a constraint, special case for stationary macro-processes of this eon, rather than tackling with contingent origin or fall episodes. No doubt, that GLC must face relativistic conditions of Einstein-spacetime. The things are still open. Surely, the new insights of PCC and GLC can not be jostled out.

[67] F.Combes, P.Boisse, A.Mazure, A.Blanchard : Galaxies and Cosmology. 2nd Edition, Heidelberg-2001.

[68] St.Hawking: A Brief History of Time-New York-1988. K.Mainzer: HAWKING. FREIBURG-Basel-Wien 2000.

[69] K.Mainzer-2000.

mathematical configurations hidden under the foreground probabilities, one is urged to conclude: there is no border, no end to grasp for the cosmologist. That's like HAWKING's statement! Yet *G4* remains a mystery. In contrary to the naturalistic intention of fabulously intelligent St. HAWKING, the message sounds: we touch the realm of super intelligent instance to induce and rule the information-like styled and projected energetic-matter phenomena, projected on the stage of EINSTEIN-spacetime. Coming now back to our experienced S_0-eon sphere, we are massively confronted with the border "T_{gal}-big bang", and the principally openness of energy-matter affairs on all spacetime-sections.

ST. HAWKING reports from an audience in 1981 with POPE JOHANNES PAUL II, where the Pope spoke to an elected elite of scientist: the scientist may freely explore the things following the big bang, but should not try to search out the big-bang itself, as the mystery of GOD's creation act. Hawking bitchy commentates: JOHANNES PAUL II was very unsuspecting, that he has just before sketched on the world-audience of elicited scientist his new cosmology without borders of spacetime, and thus no logical room for an act of creation[70]. It's somewhat striking, that afterward HAWKING felt notably pressed, to bring this message to a popular world audience. KLAUS MAINZER, in „HAWKING", puts in the picture the effort with public relations strategies, to publish the bestseller[71] "A brief History of Time", meanwhile translated in all world-languages with editions of millions. Hence HAWKING gets a world known media star. K. MAINZER judges: HAWKING until now lacked the NOBEL-prize, because his mathematical demanding theory is hardly empirical testable, a criterion for the NOBEL-price.

In creation believing Christians become more and more suspicious on the HAWKING-world-show, in the midst his pious wife JANE WILDE, suspicious on the hidden atheism, which is spread out all over the world by the PR-prestige of his famous husband. She warned him: don't feel as God [72]! Science has always also biographical illuminating essences.

The Vatican was also informed on the overturning quantum-field theory and cosmology of B. HEIM. Hence HEIM received the urged appeal to demonstrate via his theoretical highlights a scientific proof of God, expected in the Catholic doctrine tradition, as principally possible and needed. He clearly refuses this demand arguing: I am a scientist and restrain on my results, namely the *G4-mystery* [Fig.1][73].

In my judging the affairs, the DROESCHER-HEIM multidimensional projection theory and cosmology is logically wider and riper than the stand of HAWKING[74]. For a matter of fact HAWKING's no-boundary conditioned quantum cosmology could be understood as a constraint special case of the wider issue of B.HEIM, and leads not forcedly on the trumpeted consequences.

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[70] Hawking: A Brief History of Time. 1988, 148.
[71] Mainzer-200 ,21 ff.
[72] Mainzer-2000: Not a view are very much touched, that Hawking separated from Jane on the top of his celebrity, as Jane offers herself very much for him and their three children.
[73] I remember B.Heim's modesty as scientist on a visit in Heims' home 1996. Variationen, 6.3.,92ff.
[74] I find it a tragedy, that B. HEIM's work was written in German and not kept to attention of the expert community.

3. Exhausting the theoretical and cosmological results for a plausible and rational exegesis of Biblical testimonies on creation, history and forecasted events.

3.1. Facing once more the time-question

The initially given preliminaries stated: GOD's sovereign initial and perpetual acting needs no mediating by beforehand bestowed abstract *laws of nature,* which should guarantee self organizing procedures to evaluate the things. Just this naturalistic startpoint give birth on the than needed enormous time horizons. Time is the central stumbling block between natural world concepts and a consequent creation and history view as Heilsgeschichte (salvation history).

So let us first clear up this stumbling stone. A short report of an exemplary godly deed of JESUS, the incarnated GOD'S SON, provokes: He met a leprosy ill man and spoke: "be health", and the leprosy ill man was *suddenly* healed [Marc 1,41]. The report by MARC underlines "*at once*" [kai. ***euvqu.j*** avph/lqen avpV auvtou/ h` le,pra(kai. evkaqari,sqhÅ]]]] The full-mighty acting of Jesus by word's command, and suddenly realization for the eyes of watchers is, in no way an interruption of *natural laws.* It is like the contrary: it is the demonstration how the projection chain from *G4* unto four-graded EINSTEIN-spacetime works [Fig. 1]. Within the HEISENBERG-swell the wonder of healing, say the new creation of cells and skin-webs, may be of limbs and eyes, comes to pass in the visible CIS-world. Hidden in the hyperspace-mystery, we imagine a storm of regulated bits invading the subspace order with the visible result of the healed body. A wonder in this sense: the stationary surface probabilities are shifted to the normally unexpected: that can be really seen and led the watchers praise the LORD. But this is an additional demonstration of the validity of *quantum theory* with the well foundation of [PCC].

The DROESCHER-HEIM [PCC] is the key for the stumbling block of time to understand *nature*, better to say: *creation*. Man with his mandate to work needs time to handle the given things as craftsman or subtle technician the way of CIS-physics, chemistry, electricity, and so on. Natural processes need time according the experienced and statistically formulated CIS-laws. Men without a vision on an all-mighty creator are misguided to belief on s. c. *natural laws* as the actors to selforganize the complex things as stars, galaxies, planets with organisms. The NOBEL-laureat KONRAD LORENZ stated: *Evolution* of organisms needs three constructors: *time*, *random chance*, *selection*. *Time* gains the hypostasis of a creating subject: the central challenge of naturalism!

Seeing stars and galaxies in its present gravitational and chemical dynamics, presses in the flair of natural world view to propose gigantic time horizons, partly with the maximum postulate of infinity, for instance the way of *mixmaster*-conceptions, where our believed big-bang expansion phase is only a special one in endless changing eons and universes.

Free from this naturalistic pressure, the under Christians and Jews world wide intended *creation-theory*, meanwhile has gained fruitful competitive alternative-paradigms:

in biology via the by FRANK L. MARSH[75] established and by experts developed *basic-type concept*, in geology via by some experts forced *flood models*[76]. The astronomical and astrophysical framework seems very insistent for adapting on a Biblical horizon of GOD's sovereign acting on the well-concern of his human creature.

Let us focus on the key: if we concede gigantic space dimensions in the fourfold EINSTEIN-spacetime, a clever and irrefutable argument seems at first glance: a faire and honorable Creator does not deceive his creatures with old-shining and pseudo time-spanning creation features! Has GOD really created the light-bridges between very distant light-sources to fib us in our time-imaginations? [PCC & QLC] offer a surprisingly fascinating solution for our intelligent responsibility, with which the Creator has bestowed us. Who is willing to satisfy his intellect, may study and strengthen [PCC & QLC]. Best theoretical physicists and mathematicians merely reach the goal, as GOD's creation wisdoms transcends all human endeavors! Nevertheless some key highlights can be grasped: light in its quantised hyperspace and CIS-characteristics is such a basic wonder to establish and rule the creation, that the observing and modeling scientist, better we all, may bow our knees.

The [PCC] (Fig.1) projection-wisdom, combined with the quantised light medium, reveals a quasi timeless and merely energetic ground dimension as a mathematically handled information sphere, named symbolically *G4*. In this basic realm all in S_0 as hyperspace projection appearing entities are predisposed. We met the creation sophistication of quantised atoms, which realize the wonder of in the hyperspace-dimensions hidden shadow worlds. One striking conclusion of [PCC] was the expectation, that suddenly and simultaneously at all spacetime-points atomic and complicated molecular structures can appear on the CIS-stage, the absolutely contingent way. Quantum theory by its very internment underpins this contingent shifts of probabilities – from quite normal to very unexpected bundles of events. Nevertheless the stationary running of things, which can be handled by normal CIS-physics and CIS- techniques are dominant for our normal wellness and daily affairs. This bestowed dominance is likewise a protection to don't steadily experience the paranormal. For a consequent naturalist, life, reductive science, and worldview freedom is this way granted.

B.HEIM, by his developed [PCC], states T_{gal} as absolutely contingent on the one hand and estimates on the other side the possible time horizon for the than following galaxy dynamics in billions of years, harmonizing on standard cosmology. [PCC] itself lets T_{gal} open as a free parameter. In this case Biblical constraints count.

To force the discussion of time horizons to the crack point: [PCC & QLC] put the causation of order and gestalt of visible phenomena into the projection chain of hyperspace, beyond the swell of appearance in the S_0-foreground. In the coordinate subspaces the causation procedures in its information ruled steps run in its own-time, quantised by light-cone fractions. In *G4*, where $c_u \rightarrow \infty$ and $h_u \rightarrow 0$, time elapsing and energetic backlash vanish in favor of pure information mathematics.

To say it as a provocation: the naturalistic time spreading from present to the past or future in billions of years may be a crucial misunderstanding of the essence of light and

[75] Frank Lewis Marsh: Life, Man, and Time. Escondido-CA-1967. R. Junker-S.Scherer: Evolution-Ein kritisches Lehrbuch-Giessen-1998/4th ed.
[76] Stephan,M & Fritzsche,T: Sintflut und Geologie. Holzgerlingen-2000.

jostling away the hyperspace ontology, because [QLC] offers surprising solutions. Looking at the sky by the modern super-telescopes one may be overpowered by the fantastic scenery of stars, galaxies, the plenty of intergalactic physical events [Fig.10].

Because the time-horizon problem seems indeed the heaviest demand for our intellect, I'll try to focus it once more: one can put the causation chain of events the way of linear time steps modeled in any kind of evolutionary process-chain into the past and reach any primal chain-member, even the hypostasis *unlimited*. E.g.: a hot big bang, an endless mixmaster-scenario, a primal organic molecule, a primal cell, and so on. The now by PCC offered alternative reveals as the hyperspace-projection-chain, where endless time and space-steps eventuate in quasi-time- and space-less mathematically ruled information sets. Our experience CIS-sphere is really open on each space-time-section, either in any past as in any present or future of our S_0-fourfold EINSTEIN-spacetime.

Above we have discussed the trick of ST. HAWKING: our physical world shows proposed and dispatched from an abstract mathematical imaginary space, conditioned by unfixed and senseless probabilities, the only accepted border condition. Our big-bang world results from a chance bubble, than spreading physically out under this border conditions. This big-bang-world is consequently closed and functions under the initial bubble conditions and the pure physical laws. The message sounds: there is no Creator possible and needed.

If we take the Biblical account of mankind on earth historically and ontologically serious, we will reach from the present, where we do astro-science, to the past events, borders of our eon-science. The important past-border shows as T_{gal} , the simultaneous and ubiquitous birth of the whole galaxy macro-edge. The sketched situation in astro-sciences and cosmology is a now quit another with appreciable edge-points, which are to strengthen:

A reconstruction of the history of nature of the kind "what it will probably have been like" measured on our quit normal experience and physics is employing the principle of the so called actualism.[77] It states that a scientific reconstruction of the history of organisms, the earth, or the cosmos, must take present experience as a measure, this being the only plausible one. If the 'laws of nature' with its locally valid amounts, that form the basis of our present experience, should themselves be subjected to change either within the course of history or in the tension between stationary or contingent induced, this kind of reconstruction would yield a pseudo-history, founded on assumptions of constancy or symmetry that cannot be substantiated by science. Moreover, there is the general assumption of a mono-causal connection of effects that is itself of metaphysical or even mythological character. We are confronted with a myth of uniformity that produces dummy realities in both past and future.[78] The physicist A. M. KLAUS MÜLLER chooses the parable of circle and tangent[79] and states:

"The tangent is a straight line that touches the circle in one point. This point is an image for the present. Suppose that the circle be the true course of history, which in this image is bent. The question is: are we really looking at the past along the line of the circle - or are we looking along the straight line, ob-

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77. Jitse van der Meer: The Uniformity Principle. In: Hierarchy - Towards a Framework for Coherence of Faith and Science (Pascal Centre Publication. Academic Series No.1), 1989, 25f.

78. Alma von Stockhausen: Entwicklung, der letzte Gedanke? In: The same, Remigius Bäumer (edd.): Verabschiedung oder naturphilosophische Weiterführung der Metaphysik? Frankfurt am Main 1990, 11-40.

79. A. M. Klaus Müller: Das unbekannte Land - Konflikt-Fall Natur. Stuttgart 1987, fig. 1.

taining consistent results down to some earlier point of the line - the big bang - but still diverging from the true past? I doubt that the big bang represents the true past of the universe. Instead it is my belief that the big bang is the past we will necessarily yield if we look back from present conditions."

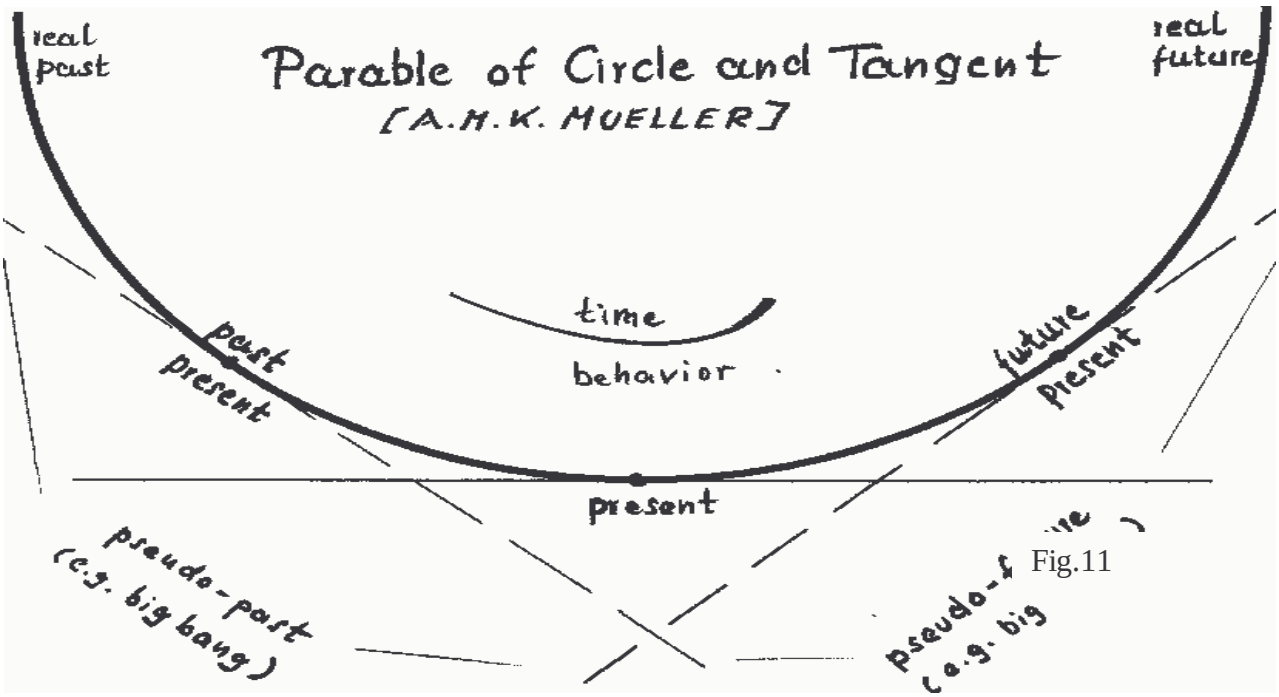

Fig.11

3.2. Some summarizing Reflections on 'Time' of 'This Eon' and of the 'Whole Creation'

We are already faced with the question of time. Is there any sense to speak of the age of the universe, the whole? Reviewing the way to make models of the whole we knock to some naturalistic tricks. The *first*: reduce reality to the behavior of gravitating matter; the *second*: overlook the quantum-shaped electro-magnetic influence on structural regimes; the *third*: smear over all structure in matter aggregations to a super-fluid of mass; the *forth*: forget all life aspects; the *fifth*: don't worry about the open micro-horizon with its hidden causation regimes; the *sixth*: postulate the constancy of basic values over all times and spaces. This way you get a closed naturalistic set of matter behavior which you can handle the model and mathematical path.

This did ALBERT EINSTEIN making a space-time bunch to formulate a relativistic field theory in differential equation terms over a virtual geodesic particle path. It is very exciting, that until 1920 EINSTEIN tried to find a solution for a static universe by introducing a cosmic anti-gravity term. His pantheistic intention was to avoid any singularity which would clash with his continuous and more aesthetically rooted worldview and his uniformitarian presuppositions. This way the question of an age of the whole disappears.

It was about 1920 a kind of revolution, as JOHN HUBBLE found a correlation law between the red-shift in the radiation spectra of cosmic sources and their brightness. Since this empirical correlation was interpreted as an indicator for an expanding universe, cosmologists found a *big bang*-solution of EINSTEIN's field equations with that time singularity: Now the matter cosmos has its age: billions of years! Some Christians and theologians es-

timate this standard view as a strong indicator for *creation* and very compatible with the doctrine of creation[80].

For those the HARTLE-HAWKING issue is a challenge: no singularity in time and no edge of space: the self-sustaining matter entity needs no Creator! HARTLE and HAWKING have strongly criticized some ideal conformity presuppositions of too simple GRT-solutions of the so called FRW-worlds[81]. In the out of the quantum vacuum decay by the path integral method[82] deduced random wave-function of matter status, a destiny cosmos time arrow again disappears.

In spite of this challenging situation for big bang cosmologists - loosing a consistent theory for the s. c. standard scenario - they fix on two observable data realms: firstly the named [cmb] and secondly the red-shifts of spectra. But both data sets could be interpreted quite the contrary way: the [cmb] and the red-shift as above signified.

I dare to signify the *naturalistic* approach to establish a destiny age of the matter cosmos as failed, concerning the observable and the explanation power of theories. True to the introduced hermeneutic principle, not shying the term over-cutting between theology and science, as there is no pure *nature* besides *creation*, and no pure *scientific truth* besides biblical revelation, we dare to reevaluate the *time*-question.

In *this eon,* recent mankind lives after the *big flood*, named *Sint-flood*, and the act of dropping out of Eden, named the *sint-fall*. Both past events are actual in all mankind traditions. Should we handle this messages from the past as historical facts, which also touch the physical and biological realm? Concerning the *sint-flood,* we are excited by a fascinating publication of the two geologists ALEXANDER and EDITH TOLLMANN of the University of Vienna: *"Und die Sintflut gab es doch (And there was really a 'Sint-flood')"*. Both are no *creationists* and attack the Bible traditions! They emphasize to leave the *actualism* and come back to a strong huge flood catastrophism. They date the global flood on 7 500 B. C. The real history of mankind and the surrounding earthly ecosystem bear the scar of this judgment *sint-flood* by GOD[83]. But what with the *sint-fall* as a historical date with relevance to geology, cosmology, mankind and bio-spheres? Let me contemplate:

Jewish mystical exegesis paints an exciting picture of the deepness of creation[84]: All creatures originate in the mind and heart of GOD and transcend several creation stages, the *sefiroth*, to reach at least the earthly body-shape. The *sefira* round the throne of the Creator is named *the paradise* and the earth is His *footstool*. JESUS CHRIST used in His message on the mountain (Mt 5:35) the same picture citing psalm 48:3 and ST. PAUL described his mystical experience in terms of the *sefiroth*: he feels shifted through the *sefiroth*, the *third heaven* unto the *paradise "and heard words so secret that human lips may not repeat them"* (2 Cor 12:5). The biblical revelation bestowed us with a fruitful view of the real *deepness* of creation: space-time will not be understood in terms of random matter scenarios in

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80. S. above: The dispute between Pope Johannes II and St.Hawking.
81. Friedman-Robertson-Walker-worlds. Cf. Variationen: [5],44ff.
82. For the path integral method see e.g. Bernulf Kanitscheider: Does physical cosmology transcend the limits of naturalistic reasoning? In: Paul Weingartner, Georg J. W. Dorn (edd.): Studies on Mario Bunge's Treatise. Amsterdam, Atlanta 1990, (337-350), 348; and J. B. Hartle, S. W. Hawking: Wave Function of the Universe. In: Phys. Rev. D 28, 1983, 2960-2975.
83. The full title of the book is: Alexander and Edith Tollmann: Und die Sintflut gab es doch - Vom Mythos zur historischen Wahrheit. Munich 1993. - We must renounce of details here.
84. On Jewish mysticism cf. James M. Houston: Reflections on Mysticism - How Valid is Evangelical Anti-Mysticism? In: Markus Bockmühl, Helmut Burckhardt (edd.): Gott lieben und seine Gebote halten - Loving God and Keeping His Commandments. In memoriam Klaus Bockmühl. Gießen, Basel 1991, 163-181.

scales of billions of years and billions of light-years, the naturalistic idiolatry. The sketch of emboxed animated QL-parameter worlds S_i seems revelation like: a wonderful organized universe, rooted in GOD's throne and reigned by the Triune GOD, where CHRIST presents the mediator, the HOLY SPIRIT His personal acting power and the angels His servants. That is no naive cosmograph of traditional ball shells! No painter can figure or design such a splendor of creation.

Here the by [GLC] suggested basic structures are enlightening. We suggest the *sefiroth* stages or spheres, physically spoken, separated by the quantised atom features in the sketched light-cone dispositions. We experience the fact, that we can not transgress from our S_o-status by physical acts on s. c. shadow worlds $S_{i,}$ emboxed in the tinted quantum-vacuum-hyperspace. Hence we introduce the term *QL (Quantum-Light)-wall* $QLW_{i,i+1}$. Consequently we dare to interpret the *sint-fall* as a convulsive shift of men's body-shape and ecosystem from the paradise most *light*-shaped sefira to the utter *gloomy* or heavy shaped *sefira* S_0. The eon-time border T_{gal}, the touched stormy galaxy big-bang, may be interpreted this way. That's why T_{gal} reveals as a fundamental date of manhood and limits the sensible time-horizon also of all physical features of *this eon* S_0.

The visible and the invisible hemispheres have their special characteristics. Our visible sphere is biblically valued as the shape of fallen structure, as *this eon,* this world against the lost paradise and the hoped new world. The meaning of *fallen* shape cannot be restricted to the moral realm, it has its concrete physical and biological expressions. In accordance to LEIBNIZ the *best* world which can be granted to a morally free man must have the shape to hid the Creator: deus absconditus. No rational proof of GOD should be possible. The *free man* should have the naturalistic option *etsi deus non daretur*, to avoid any relation to a sovereign GOD and to speculate theoretically the S_0-physics way.

The *sint-fall* represents the deep separation between GOD and man. There are QL (Quantum-Light)-walls between. Consequently we have further on to clear the *time-question*[85].

Let me take the manifestation of the resurrected CHRIST as a model: I take the two stories of Luke 24 in account where JESUS suddenly appeared to the disciples in His known body-shape, shared the way-*time* to Emmaus with two of them and afterwards shared *time* in preaching and eating with them in Jerusalem, and disappeared at once. His bodily presence was in our measurable time. Begin and end of His manifestation lie in the secret of *sudden* and can not be measured with physical clocks.

I dare to interpret *begin* and *end* of his body-shaped manifestation as penetrating respectively drawing back through *our* QL-wall QLW_0. CHRIST's incarnation by the way of the womb of a woman is another secret, which may give a key to deeper understanding of human embryo-genesis in general[86], but seems not to be relevant for our basic time question.

The manifestation model may offer a key to grasp *begin* and *end* of *this eon* the analogous way: The expelling of the first man-pair from Eden together with their whole life-

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85. The German theologian Karl Heim, by Albert Einstein highly estimated as a correct theological interpreter of his relativity theories, marked our recent time experience as a basic character of the fallen status of our bodily circumstances. Cf. e. g. his: Christian Faith and Natural Science (Original: Der christliche Gottesglaube und die Naturwissenschaft; translated by Neville H. Smith). London 1953.

86. Cf. Horst W. Beck: Biblische Universalität und Wissenschaft, 361-365.

sphere, their whole body-shape, could be understood as the shifting through QL-walls into the inner-set of *our* macro-screen, the S_0-world. The *pre*-history of CHRIST *before* His incarnation and manifestations and His *post*-history *after* his ascending, lie hidden in the realms of invisible creation-spheres. *During* His Incarnation and manifestations CHRIST shared and fulfilled the *all* (Eph 1:23), in on [PCC-QLC] adapted terms, the full hyperspace reality.

Should we ask for any *history* ore *time-spans* concerning our recent *fallen* S_0-world beyond the *sint-fall?* We can imagine GOD's sovereign act of expelling man and his eco-system *earth* in its astro-sphere into the recent stage of g_0, h_0, c_0 -physics as a kind of *big bang.* Many theorists of the *fire ball big bang* state: there is no sense to ask for *space and time* beyond. The sense to search for *time* and reality beyond the *sint-fall-big bang* scopes in questions to characteristics of the invisible, the for our recent sensorium hidden emboxed worlds S_i. Yes, there is *pre-history* of earth, sun-system, galaxies, meta-galaxies systems. But all this is in a quite another space-time order, which we can not describe in the g_0, h_0, c_0 -physics, the paralogism of naturalistic physics. In this paralogism are rooted the pseudo-scales of billions of years and light-years[87].

I guessed the complex and magnificent scenery of meta-galactic radiation sources, which is observable as radiation spectras on our atomic built detectors in the interior of our QL-screen QLW_0, changed to S_0-radiation and reds-hifted by the QL-wall, from space-time orders *beyond*. [QLC] may give some rational hints. Without doubt, we can see *real* histories of galaxies respectively quasars, but these are histories in their conjunct spherical *eigen*-times (proper times) which appear modulated by our QLW_0, to our time order S_0. The look back on T_{gal} with S_0-atomic instruments divulges the fantastic complete scenery of galactic dynamics inclusive all mutual force-bridges. For this reason the T_{gal}- big bang, in contrary to the hot big bang of [SBB] as a punctual singularity, presents the unbelievable full up developed ubiquitous, chemical, electrical, and gravitational dynamics of stars and galaxies and the additional interstellar and intergalactic physical quintessence.

The naturalistic paralogism is the naive and uniformitarianistic prolongation in the conditions of our experienced S_0-spacetime to *pseudo*-pasts and *pseudo*-futures. For geologists and palaeontologists, the *sint*-flood is a kind of knowledge wall. Beyond this global judgment by the Creator lies a lost design of earth and biosphere. We cannot strongly reestablish this design with means of our post-flood experiences. The global flood paradigm seems very fruitful for these historical oriented sciences for all post-flood events and developments.[88]

For cosmologists on their search for a common theory of the *super*-force[89], and the basic causation regimes, it would be a worthwhile offer to leave the *naïve* monistic one world view to gain a pretentious one. It may be that the mathematical skills of man can not reach this pretentiously differentiated creation view. The top-TOE of DREOSCHER-HEIM may announce principal margins of theoretical intellect. I guess, that the whole and experimentally stabled recent knowledge of theoretical physics should not be abandoned, even restrictively reevaluated as a special case of a more complicated emboxed world $S_{i,i+1}$ – scenarios in the spoors of [PCC&QLC]. The successfully used [SRT_0] and [GRT_0], the

87. See the figure of A. M. Klaus Müller on [fig.11].
88 Stehan,M & Fritzsche, T.-2000.
89. Paul Davies: Superforce. New York 1986.

[QED_0] and [QGD_0 [90]] are special cases for the S_0-world with on this special realm restricted validness. The *sint-fall* is a strict barrier to S_0-knowledge! For Christian and biblically oriented theorists it may be a worthwhile task and call to outreach recent theories to conjunct hyper-theories in the scope of emboxed QL-parameter [g_i, h_i, c_i]-worlds, the mystery of accompanying shadow worlds and immaterial coordinate dimensions.

Let me close these reflections on *time* with some suggestions:

(1) The time-question is philosophically spoken one of the most pretentious ones (AUGUSTINUS) and Christians should hesitate to give simple answers, either in adapting their opinions to naturalistic views or in the way of naive statements as "*we believe in the 'bishop Usher's chronology*".

(2) I dare further to imagine that the *eigen(proper)*-space-time regimes in spheres of the whole, where for instance the histories of galaxies' could be handled in billions of *eigen*-years (proper years) [$c_u \rightarrow \infty$; $h_u \rightarrow 0$], the special time-period of the sphere S_i, could in principle be commuted to the time-scale S_0. If the presumptively introduced periodical law of red-shift distribution should hold for a commutation factor[91], all cosmological events could relate to the existence of man in a granted creation as his ecosystem. This confirms the mentioned *maximum anthropic principle.*

(3) The begin of *this eon* was signified as the *big bang* of expelling man and his created environment to the special physical and biological conditions of *now*. The shifting of any creation element through QL-walls to obsess other spheres must not mean to lose the *pre*-spherical history or the broader spherical causation contact the projection-chain-way [PCC]. As CHRIST has His special *pre*-existence to his incarnation, He has also His *post*-existence and during his incarnation his *co*-existence to the whole. In analogy it is to presume, that any creation element of *this eon* may have a conjunct spherical prehistory in different space-time orders, which counts for his *gestalt*, his special representation in *this eon.* For instance: the *age* of Adam, the first man, counts for *Eden*-experience and *post-Eden*-experience. The post-Eden age is named for 930 years. For the *Eden*-age we have no measure out of *this eon.*

(4) In each radiation spectrum of extra-galactic cosmic sources a conjunct spherical history is hidden, which can not be grasped in our *linear* time elapsing. The radiation running time for instance from a quasar source with the red-shift peak z = 4 (suggested at the *edge* of the measurable cosmos) which is *linearly* estimated to 10^{10} years, may be commuted by the red-shift factor z_i/z_o in our *eon-time* to less than $\kappa 10^4$ years. A harmonics key for commutation probably will be the above stated basic RYDBERG-SETTERFIELD-z-quantum $z_q = 8{,}9114*10^{-6.}$

Another exciting example could be the [cmb]. It represents the maximum red-shift peak of about $z_u = \xi*10^{10}z_0$, induced by the basic radiation field S_u [$h_u \rightarrow 0$; $c_u \rightarrow \infty$]. The commutation account (z_u/z_0) would show no measurable time elapsing in our experienced world S_0, as hidden in the HEISENBERG-swells. If, as I guess, [cmb] is the remainder of the basic *information field G4*, ubiquitous at any creation point in each sphere, it represents the prima vista *timeless* ubiquity of information influence to all created elements. Naturalistic big bang cosmology [SBB] puts consequently, in accord to its uniform presuppositions, the

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90. SRT = Special relativity theory; GRT = General relativity theory; EQD = Electricity quantum dynamics; GQD = Gravity quantum dynamics.

91. For the Arp-Tifft-law of periodicity s. above.

[cmb] source in the big bang scenario. We are here faced with a further paralogism of the naturalistic idiolatry.

(5) We suppose for an emboxed QL-parameter world the representation of each created element or living creature in the hidden spheres $S_{\geq i}$. Suitably we can postulate *deeper* causation bridges between existing elements[92]. For our visible world is valid: Science is dealing with causation bridges in accord to our normal experiences: causae secundae (second causes). Facing the sketched emboxed spheric world-aspects, we have to reckon with a deeper causation hierarchy: will initiated causae primae. The naturalists are steadily facing so called MÜNCHHAUSEN-lemmata: they are endless looking for the *last* pure *natural* laws, finding in this hermeneutic circle nothing else than the stipulated *quantum vacuum*, which can not be a 'vacuum', in contrary, it shows as the deepest mystery we can scientifically face. PAUL DAVIES states: as 99,99..% of the $mass_0$-less cosmos reveals as vacuum, it must be of the highest interest for our research to understand the observable naught as the horizon of self-organizing the universe[93], namely the wonder of hyperspace.

(6) The Biblical revelation relates all created elements, every single one creature onto the TRIUNE CREATOR Himself. We have marked some basic notions to a creation doctrine in the modern context of science. The exposed differentiated creation view should be a stimulating, if also inexhaustible, program to a competing approach and research against the naturalistic way.

On wisdom - Sirach 1:10

All wisdom comes from the Lord and is with him for ever.
The sand of the sea, the drops of rain, and the days of eternity
- who can count them?
The height of heaven, the breadth of the earth, the abyss, and wisdom
– who can search them out?
Wisdom was created before all things,
and prudent understanding from eternity.
The root of wisdom - to whom has it been revealed? Her clever devices
- who knows them?
There is One who is wise, greatly to be feared, sitting upon his throne.
The Lord himself created wisdom; he saw her and apportioned her,
he poured her out upon all his works.
She dwells with all flesh according to his gift,
and he supplied her to those who love him.
The fear of the Lord is glory and exultation,
and gladness and a crown of rejoicing.
The fear of the Lord delights the heart,
and gives gladness and joy and long life.

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92. The theoretical physicists, looking for unified theories for all powers and mutual forces, come to question more dimensions. They tacle with s.c. shadow universes, which penetrate our measurable world. They also discuss at least theoretically effect bridges between material systems, which overwhelm partly the normal h_0, c_0, g_0- conditions. It may be, that they are developing the needed mathematical skills for the suggested conjunct emboxed [g_i, h_i, c_i] world. See e.g. Paul Davies: Superforce, "In how many dimensions do we live?".

93. Cf. Paul Davies: Superforce, "The living vacuum".