## Advanced Physics (English translation):

## Hello,

My name is Barabou Vedu. Between my birth in the year 1983 and 1997 I lived in a top-secret underground military base probably in Central Asia. Around 1996 to 1997 mind deletion was obviously performed on me. After it I was transported to the surface in Tajikistan (Central Asia). There I became a member of a mind control gang.

After a short time both the attempt to erase my memory, as well as the attempt to assimilate me into the mindcontrol gang proved to be unsuccessful. My reactivated memories kept me from to accepting the manipulation of the other members in the mind control gang. After this I migrated to Western Europe (Germany) and I was able to strip myself completely from influence of my former client (the Russian military?).

Thanks to the later returning memories of my youth, I can remember well the things that have happened to me in an underground military base. So I can say with absolute certainty, that in this underground facility functioning alien artifacts were examined by scientifically trained personnel. For example in our facility UFO wrecks existed. By activating the drive of an UFO, the external gravitational field could be blocked with the result of zero gravity inside of it. Furthermore we had machines that were able to transfer directly via technical telepathy perfect quality image, feelings, thoughts, body sensations and sounds in to the brain (mind-control technology). The mind-control abilities were achieved through alien implants, which were transplanted without our approval into our brains. Adults confirmed this repeated to me, that this is so and that nobody could do anything against it.

In our facility we had in the 80's huge glass panels on the walls where you could see colored movies in perfect three-dimensional (. Project "Looking Glass"?). Some panels showed strange films1 with brown naked creatures, which were remarkably similar to the aliens of the film "Roswell rests the truth".

1 mostly apparently eye films of other people with an alien implant. We had also an alien field shifting technology, which was an invisible sphere without a shadow. It could transport a person to all places on the earth surface. The field tube could reach enormous speeds and pass through non-metallic material if it was water. So in very short time you could reach great heights above the earth's surface (up to about 1km). Hit the field tube magnetisable material, there were strange luminous phenomena around the metal and the field tube suffered visible disturbances near the metal. Due to an unspecified field effect (or scatter effect?) the field tube pointed always in the opposite direction of the sunlight. If the sun was shining, a person looked always in the direct light reflection of sunlight on the ground. At downfall of sun the eye was directed more and more to the sky.

Finally, I can also confirm that in our faculty dreams of me and other people could be made visible - presumably by transplanted alien implants - and the dreams and our films of the day could be saved to Ping-Pong ball sized glass spheres.

To the uncommon medical experimentation in our faculty was the transplantation of a whole human brain into a 1.2 meters tall red-green alien robot (see my full report about this on the website
www.Projectcamelot.net/Base_New_berlin.html). Reportedly human brains were incorporated into "silver cabinets" of the information system of our faculty, so that we could communicate with extraterrestrial life forms. A direct communication with aliens was not possible. To communicate with them mediator were needed, which were probably the brains in the machine and implant of the alien in us.

Through this unusual ways of communication, our scientists were able to achieve information in pictures about extraterrestrial physics. The faculty had strange movies with moving colored circles and lines, which described physical interactions in six-dimensional space. No more than these six dimensions existed. One must distinguish in this six-dimensional space between a three-dimensional momentum space (probably identical with our perceived environment) and on it vertically standing another three-dimensional phase space. Films that reported on such things were either with an asexual voice of an unfamiliar person or with the male voices which was familiar. Occasionally the speaker lamented, that they would have to watch these movies again (as if they could not resist) and that they would be confused by all the information in it.

The people in our faculty were really tortured to find out something new about physics. And who will reward them? No one! Anyone who got into the faculty would never get out anymore! You were trapped there forever, unless you underwent a deletion of your mind as I did or you died. In this case, you could certainly leave our facility again!

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## 1.Lorenz Scheme mechanics:

In our facility, we watched the following movie about space mechanics - probably from an extraterrestrial source that should make familiar us with their kind of physics. In this movie, you walk around at night somewhere outside. While the path is just crossing under a power line, a deep male voice suddenly begins to tell the following things:
"The 10 -string, he goes straight up and out of the space. 10 -string is equal to 4 -string. So it's actually a 4 -string. "As I see the image below in the movie in front of me, which, however, turns in this figure, the size of circuits increases and then decreases again has.


Figure 1: Picture in a film about Ghost-thrillthreads, 4-strings, 10strings.

Even as the circles - nested into each other - are increasing and decreasing alternately with the large outer green circle, appear on the red surface of the "space of interactions" a large and a small mind drill bit (see Figure 1). A male voice says: "A old mind drill head and a young mind drill head. Both are here as nested photon stings, so that overall a spatial structure. (...) Errr .... Saul what you say to $5,69 \cdot 10^{-18}(\ldots.) \ldots$... Errr $10^{-120}$. "
The scientists in our facility were aware of the physical meaning of this model. They told me about this, that the space mechanics - like they are known outside - are wrong. Right it is to work with a 5 -dimensional Lorenz ether. This would apply to the constancy of the speed of light. The resulting theory has special cases in which Einstein (see the Einstein Cross drawn by me in the following figures) is valid. In general, however, it results in fundamentally different equations.

## Description of our space mechanics:

The thing with our Einstein crosses worked like this (my father's explanation): To make me understand our space mechanics my father drew black crosses in a circle on a piece of painted paper and then put this paper on the floor. After this I should then be positioned at various locations adjacent to the cross on the ground. I was either there or in the space of interactions in the ether of time. Since the Einstein crosses in the space, should always have the same size in all four directions in space, the time can't always go by at the same rate. If you move quickly through the ether you catch up with your own Einstein cross and thus you can in the time move not so far come up in your cross like someone, who rests in the ether ... At the end, my father even said something about, that the mechanical space in $R^{4}$ is actually a space in the mechanics of $R^{5}$. This 5 th spatial direction should also be very important. Because everything could work only if this 5th spatial direction also exists."


Figure 2: A Einstein cross.

## Assumptions used to derive our space mechanics:

(See also Henry Anton Lorenz - the differences are only marginal to his theory):
1.) There is an ether. This ether should be at least three dimensional (for the derivation of the Lorenz equations, we only need a 3-dimensional ether, for the derivation of the 4-dimensional sinusoidal vibration of the universe, but we shall need later a minimum 5 -dim ether). Next the ether is always positive to be defined (i.e. Pythagoras is to be applicable everywhere, in contrast to Einstein's ether-free
space) and for movements of strings, the field strings unwind in this ether, it should be valid that this is only possible at an absolute speed C and K . It will therefore apply: $\mathrm{V}_{1}{ }^{2}+\mathrm{V}_{2}{ }^{2}+\mathrm{V}_{3}{ }^{2}+\ldots \ldots . .=\mathrm{K}^{2}=$ const. (In the 5-dimensional case on the left $+\mathrm{V}_{4}{ }^{2}+\mathrm{V}_{5}{ }^{2}$ can be supplemented). Likewise, also at the intersection of two fields no relative movements relative to one another should occur which are greater than K .
2.) Matter is composed of photons whose fields are "wedged" into each other (cf. our spin $1 / 2$ particle model). From the assumption a) then follows as in Henry Anton Lorenz in Lorenz's ether that matter in motion at high speeds close to C shows Lorenz contraction in the direction of its movement. This effect is different from Einstein no mysterious apparent effect, but a completely real effect. In fact, it is an electromagnetic effect, which competes with electromagnetic effects of rigid bodies.
3.) The object time of a spin $1 / 2$ particle is identical to the length of the electric field generated by this object strings (also see the spin $1 / 2$ particles - Model). It will therefore apply: tobject $\sim$ Length of electric. field strings in the 4 th spatial direction.
Show as we shall see, the length is the electr. field strings of a spin $1 / 2$ particle always identical with the length of its field string in the 4th Spatial direction (see our spin $1 / 2$ particle model). The time of a particle object can then be calculated directly on the potential length of his string field in the 4th spatial direction can be determined.

## Why is the speed of light in a resonator is to be determined only in respect to C :

About space-mechanics in our base someone has told me that in deed there would exist an ether in the space and that this ether has 5 dimensions, that it is made out of electrons, positrons and waves (=Photons?) and that its green 4.th field-component and also its 5 .th field-component? would "remain?" in the space. So one maybe has to paint two green lines with the same length at one electron in the space and not one like on the picture upstairs?! Of course this two green lines at one particle should stand up then vertically on each other. Moreover one has told me in our base that the ether would have a few very exotic abilities like for example that its 4 -phase can tell us something about possible developments in future inclusive human decisions or that one can do "Soultravelling" with the help of it. I claim now, that in all 5 space-directions of the ether (= your physics fields) photons only can move with the constant velocity K . As you will see later this velocity K will be the well-known velocity C of the light in your own object-time. That makes the time-delay, the space-contraction, the constant speed of light C between two mirrors ... and so on and not Einsteins Special Theory of Relativity. One can't measure distance in a 4-dim space as ict negative and as well positive whenever it is necessary.


Because now this ether-theory makes the space-contraction and the time-delay, you can understand, when you watch Einstein-Crosses of moving objects in the 5 -dimensional surrounding ether. Because in these EinsteinCrosses you can see the space-contraction and the time-delay most best. That way one also has explained me this theory in our base. These Einstein-Crosses can be painted in a two-leveled picture of the ether. Because when the second green field-thread in the 5.th space-direction is as long as in the 4.th space-direction it doesn't matter if you watch a particle with one green thread in a 4-dim space or with two green threads in a 5-dim space. That is why I will watch on the following sides only 4 -dim views of one particle in the surrounding ether. Both Einstein-Crosses which I want to watch in the ether look somehow like that:


In direction of moving the Cross of Einstein then looks like that:


When now the velocity $\mathrm{v}_{5}$ (the length of the second green string in the 5.th space-direction) is not changing by the time (is as big as $\mathrm{V}_{4}$, r.t ) one can identify $\mathrm{V}_{4}$, r.t. as well as $\mathrm{V}_{5}$ with the velocity of light $C$. Cause then all photons will always move with the same velocity $\mathrm{C}=\mathrm{K}$ through the ether in their own object-time ( $\mathrm{V}_{4}$, r.t $=\mathrm{V}_{3}$, maximal in the space of interactions). But nevertheless velocities much higher than C or K are possible when you are able to influence your very individual object-time.... (Compare next chapter). The Cross of Einstein then looks somehow like on this picture:


## Derivation of the contraction time:

From assumption 3), and the figure above it immediately follows that the time of the object moving is $\left(1-\left(V_{3} / C\right)^{2}\right)^{0,5}$ shorter than in a reference system that rests in reference to the surrounding ether.

The Velocity of light and the Space-Contraction:
Light moves through the ether in all directions always with C. So through his own two-leveled ether it will move with the velocity $\mathrm{C}=\mathrm{V}_{4}$, r.t. . Light from a moving object has then in the direction of moving the velocity:
$\left.\mathrm{v}_{\mathrm{a}}={ }^{\text {space }} / /_{\text {time }}=\left(\mathrm{c}-\mathrm{v}_{3}\right) / \sqrt{\mathrm{c}^{2}-\mathrm{v}_{3}{ }^{2}}=\sqrt{\mathrm{C}-\mathrm{V}_{3} /\left(\mathrm{C}+\mathrm{V}_{3}\right.}\right)$
$\mathrm{v}_{\mathrm{b}}={ }^{\text {space }} /$ time $\left.=\left(\mathrm{c}+\mathrm{v}_{3}\right) / \sqrt{\mathrm{c}^{2}-\mathrm{v}_{3}{ }^{2}}=\sqrt{\mathrm{C}+\mathrm{V} 3 /\left(\mathrm{C}-\mathrm{V}_{3}\right.}\right) \quad$ (in the opposite direction)
In the direction of moving it will need then for a distance $s$ the time $t_{a}=s / v_{a}$. Because $s=V_{a} \cdot t_{a}$. And in the oppsite direction it will need for the same distance $s$ the time $t_{b}={ }^{s} / \mathrm{v}_{\mathrm{b}}$. All together it will need then for the way from one mirror and back the time $\mathrm{t}_{\text {tog }}=\mathrm{t}_{\mathrm{a}}+\mathrm{t}_{\mathrm{b}}=\mathrm{s} / \mathrm{v}_{\mathrm{a}}+{ }^{\mathrm{s}} / \mathrm{v}_{\mathrm{b}}={ }^{2 \mathrm{~S}} \mathrm{C} /\left(\mathrm{c}^{2}-\mathrm{v}_{3}{ }^{2}\right)^{0,5}$. That is why it only can have on this way the velocity $\mathrm{V}_{\text {tog. }}=\mathrm{C} \cdot\left(1-\left(\mathrm{V}_{3} / \mathrm{C}\right)^{2}\right)^{0,5}$ So there is matter of light, they should show a reduction in the movement direction (Lorenz contraction) by this factor. Considering the Lorenz contraction of matter in motion direction follows necessarily that the light in the direction of movement due to the Lorenz contraction of all distances in the matter, apparently by a factor of $1 /\left(1-\left(V_{3} / C\right)^{2}\right)^{0,5}$ faster moves than without Lorenz contraction. In total therefore obtained for the velocity of light in the direction of movement and the velocity C . That is why you always want to measure the velocity of light between two mirrors as C in this direction. Now watch the Cross of Einstein in the direction in which the object is not moving:


## The Time-Delay:

The Time-Delay is vertically to the direction of moving of course as tall as in the other Cross of Einstein. Because the 4 -thread in the fourth space-direction is here as long as in the other Einstein-Cross. That is why time will past here as well $\left(1-\left(V_{3} / C\right)^{2}\right)^{0,5}$ times slower than the "real time" (time of an not through the ether moving object).

## The Space-Contraction:

Vertically to the direction of moving you will find no Space-Contraction (compare upstairs).

## The Velocity of light:

In this Einstein-Cross now, the light in all space-directions has the same velocity. To the left side for example, it has the velocity:
space $/$ time $=\sqrt{ }\left(c^{2}-\overline{\left.v_{3}{ }^{2}\right) / \sqrt{ }\left(c^{2}\right.}-\overline{\left.v_{3}{ }^{2}\right)=1_{1}}=\mathbf{1}\right.$ or $\mathbf{C}$
And in the opposite direction:
space $/$ time $=\sqrt{ }\left(c^{2}-v_{3}{ }^{2}\right) / \sqrt{ }\left(c^{2}-v_{3}{ }^{2}\right)=1_{1 / 1}=\mathbf{1}$ or $\mathbf{C}$
So in these space-directions you as well will measure the velocity of light as $C$ between two mirrors.

## Further Space-directions:

And in all further space-directions you will get as well the same result for the velocity of light between two mirrors. All this you can see at the following equations and pictures:


Then is : $\cos (\alpha)={ }^{\mathrm{x}} /\left(\mathrm{v}_{3} / \mathrm{C}\right) \rightarrow \mathrm{x}=\cos (\alpha) \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right)$

$$
\begin{array}{ll}
\sin (\alpha)=\mathrm{Z} /\left(\mathrm{v}_{3} / \mathrm{c}\right) & \rightarrow \mathrm{z}=\sin (\alpha) \cdot\left(\mathrm{v}_{3} / \mathrm{c}_{2}\right) \\
\mathrm{x}^{2}+\mathrm{y}^{2}=\mathrm{c}^{2} & \rightarrow \mathrm{y}=\sqrt{1-\cos (\alpha)^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{c}\right)^{2}}
\end{array}
$$

$$
\begin{aligned}
& \rightarrow \mathrm{v}_{\mathrm{a}}=\mathrm{y}+\mathrm{z}=\frac{\sqrt{1-\cos (\alpha)^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}+\sin (\alpha) \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right)}}{\sqrt{1}-\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}} \\
& \rightarrow \mathrm{v}_{\mathrm{b}}=\mathrm{y}-\mathrm{z}=\frac{\sqrt{1-\cos (\alpha)^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{c}\right)^{2}-\sin (\alpha) \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right)}}{\sqrt{1-\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}}}
\end{aligned}
$$

Addition: The factor $\left(1-\left(\mathrm{V}_{3} / \mathrm{C}\right)^{2}\right)^{0,5}$ comes from the constant time-contraction in the with the velocity $\mathrm{V}_{3}$ moving object. The thickness $p$ of the ether in the watched moving-direction is then:
$\mathrm{p}=\underline{\mathrm{v}}_{\mathrm{a}}+\underline{\mathrm{v}}_{\mathrm{b}}=z \frac{\sqrt{1-\cos (\alpha)^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}}}{z \sqrt{1-\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}}}$
And the velocity of light in the direction of moving is then between two mirrors:
$\mathrm{t}_{\text {tog. }}=\frac{\mathrm{s} / \mathrm{v}_{\underline{a}}+{ }^{\mathrm{s}} / \mathrm{v}_{\underline{b}}}{2}=\frac{\mathrm{s}\left(\mathrm{v}_{\underline{a}}+\mathrm{v}_{\mathrm{b}}\right)}{2 \mathrm{v}_{\mathrm{a}} \mathrm{v}_{\mathrm{b}}}=2 \mathrm{~s} \frac{\left.\sqrt{1-\cos (\alpha)^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right.}\right)^{2}}{2 \sqrt{1-\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}}} \quad \quad \quad \quad\left(\right.$ cause $\left.\mathrm{v}_{\mathrm{a}} \cdot \mathrm{v}_{\mathrm{b}} \equiv 1\right)$
That means that the light has between two mirrors for different angles a (different moving directions) always the velocity $\mathrm{v}(\alpha) \approx \mathrm{c} \cdot \frac{\sqrt{1-\left(\mathrm{v}_{3} /\right)^{2}}}{\sqrt{1-\cos (\alpha)^{2}}{ }^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{c}\right)^{2}}$. Because of the the field-thickness $\mathrm{p}=\frac{\sqrt{1-\cos (\alpha)^{2} \cdot\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}}}{\sqrt{1-\left(\mathrm{v}_{3} / \mathrm{C}\right)^{2}}}$ in these " $\alpha$ "directions light then always only can move with the light-velocity $C$ from one mirror to an other mirror and back in these space-directions. Cause $v(\alpha) \cdot p=1$ for all angles a! So as you see, everywhere in the space one only
can measure the velocity of light between two mirrors as $C$ and as nothing else. For this it does not matter, if you have a velocity $\mathrm{V}^{*}$ in a 5 . or 6 . space-direction or not. That is why c is always equal to the velocity K in your own object-time.

Further consequences of the Lorenz ether mechanics:
When you now have an space-ship that pushes away the field of the universe, the room in the space-ship has its own field. This field then can not have an very high velocity $\mathrm{V}^{*}$ in the 4.; 5. or 6. room-direction. Because the field inside the ship probable can not know what outside is going on. Both fields then can look somehow like on this picture:


At this picture you can see that inside the ship the 4-threads can be much longer than outside the ship. Time inside the ship then can past much faster than outside. The "real time" outside is then much shorter than the real time inside. The higher $\mathrm{V}^{*}$ in the 4.; 5. or 6 . room-direction is, the bigger can be the differences. When $\mathrm{V}^{*} \sim \mathrm{~K}$ inside the ship the time can past 10,100 or 1000 times faster than outside!
And all that, although the ship is not moving through the ether. Inside the ship you then have the same field who in an not moving universe. An space-ship, who is in such an not moving field, can move through the universe with velocities higher than c . If the time inside the ship pasts 10,100 or 1000 times faster than normal, it can move with the velocities $10 \mathrm{c}, 100 \mathrm{c}$ or 1000 c . Of course the ship himself has no velocity higher than c . Only in your own different field you see it moving so fast. It is an relativistic effect. All this you can see at this picture:


When, for example, $\sqrt{\mathbf{K}^{2}-\mathbf{V}^{* 2}}$ is equal to ${ }^{1 / 10} \mathrm{~K}$.

## 2. The cosmological model:

We had been given in detail in our system also footage of the universe where the appearance of a 5 or 6 dimensional point of view. Such movies exhibited objects like this:


Figure 5: Figure in a film about the universe.

And were in another movie in our base me about the appearance of the universe from an asexual voice times shown following pictures. These images were presented to me by the asexual voice in the movie about the following words: "Here, we see the universe in reality"


Figure 6: This should also be representations of the universe. These images date from another movie. Why the universe in this movie looks a bit different, is for me impossible to say. For this I would probably need to understand what has been told in the corresponding movie. But at that time I was not able to. Probably this knowledge is lost too in my memory wipe.

## Derivation of the 4-dimensional universe in our sinus periodicity Lorenz ether:

In our base, it was repeatedly confirmed that the universe has a hollow spherical shape. However this hollow spherical shape will only be recognizable when viewed 4-dimensional. And only at a 5-dimensional analysis one can also recognize that the field of outer space (green shimmer in Figure 5 and 6) was also hollow spherical. The familiar sight of our universe, the so-called 3-dimensional momentum space is, at 5 -dimensional representation of the universe, only represented as a reddish band, which would run back into itself.
A derivation of such a model for the universe is possible, assuming that the Lorenz ether that surrounds us is at least 5-dimensional. In detail, we need the following assumptions:

Assumptions used to derive the 4-dim sinus periodicity of the universe:
4.) The masses in space are the sources of a 4-dimensional Lorenz ether. By external 4-dim fields matter moves always with constant velocity K and fields are so emitted of the matter always with the speed of K (in absolute absence of external fields both are indistinguishable!).
5.) There exists an absolute 5 -dimensional hollow spherical field around the cosmos, whose field strength F '>> F. F is the field strength of our cosmos. This assumption can be interpreted also in such a way, that the space-time field with the remnants of early expansion and implosion of the universe to accumulate the same paths again and again, for the total field strength $F^{\prime}: F^{\prime} \gg F$.
6.) A Big Bang develops, for reasons which can't be explained in more detail here, always mass emissions that have a hollow spherical shape in a 4-dimensional space. The gravitational field between these masses on the hollow spherical surface should be rolled up in a 3-dimensional field, which is returning in itself (surface of this hollow sphere). The field component in the 4th space direction of matter forms a similar hollow sphere, but this is 5 dimensional. Overall, one can also say that the field of matter in space always spans a 5 -dimensional hollow sphere with a 3 -dimensional subspace in which the G -field of the matter is wrapped up.

## Mechanical effects of space through the 4-dimensionality of the Lorenz ether:

The assumptions 1.) - 6.) it follows that the following space-mechanical effects should occur in the cosmos:

$$
s(t)=1 / 2 a t^{2}
$$

$v(t)=a t$
With $s=$ Length of the way you have moved with the velocity $\mathrm{v}, \mathrm{v}=$ Your velocity, $\mathrm{a}=$ your acceleration. At these equations you can see now that the Length of the wave also can be:
$v(t)=\int a(t)$
$\mathrm{s}(\mathrm{t})=\iint \mathrm{a}(\mathrm{t})$
and also :
$s(t)_{n}^{\prime}=v(t)$
$\mathrm{s}(\mathrm{t})=\mathrm{a}(\mathrm{t})$
With the help of these functions $s(t)$ and $v(t)$ you can calculate now way- or velocity-functions who are not $1 / 2$ a $t^{2}$ or $a \bullet t$, but something else. For example they also can be $1 / 2$ a $t^{4}$ or $\sin (t)$ or $\cos (t)$.
Now look at the force which plays the most important part in the whole Universe. Of course this force is the gravitational interaction. Because it holds all masses in the Universe together. The gravitation force is:

$$
\begin{array}{ll}
F_{\text {Gravitation }}=\frac{G M}{R^{2}} m & \begin{array}{l}
\text {, with } G=G \text { Gavitational Constant, } M=\text { Whole mass in the Universe, } m=M \text { ass of an } \\
\text { object in the room, } R=\text { Distance between } M \text { and } m, F=\text { Force between } M \text { and } m
\end{array} \\
F_{\text {Gravitation }}=\frac{G M}{R^{2}} m=a m \quad, & \text { because } F=m \text { a (mass multiplicated with the acceleration of the mass) }
\end{array} \quad \begin{aligned}
& (R=\text { distance })^{2}
\end{aligned}
$$

In this equation is:


To find out how big $M(\beta)$ and $R(\beta)$ are in this equation, you must find out how big the Gravitation-field in the Universe really is. To find out all that, of course you must consider that the 3-dimensional room in a Universe is the surface of a 4 -dimensional hollow-ball. If all that still is a physical fact or not doesn't matter. For getting the correct gravitation-field for a sin-function for the moving of the Universe you must guess that the whole room has the form of an 4-dimensional hollow-ball. Other cases can't be correct, because you get there wrong results for the field. So it must be an two-planed hollow-ball like they have told it me in our base. How big the gravitation-field in such a room always is, you can see at this picture:
$\mathrm{dM}(\beta)$




In this curved field is now the field-Distance $(\mathrm{dM}(\beta) ; \mathrm{m})$ not ${ }^{\beta} / 360^{\circ} \bullet r$ (way along the curved surface), but $\approx \sin (\beta) \cdot r$. The reason for that is, that the field of $\mathrm{dM}(\beta)$ achieves in m as if it would come from a point who has only the distance $\sin (\beta) \mathrm{r}$ from m . All that you can measure at the diameter of the field-hollow balls who arrive at m . Their diameter is not $\beta / 360^{\circ} \bullet \mathrm{r}$, but only $\sin (\beta) \cdot \mathrm{r}$. All that is why the Gravitation-Potenzial between m and $\mathrm{dM}(\beta)$ is:
$\rightarrow$ Gravitation-Potenzial between dM and m is: $\quad \mathrm{GdMm} \frac{1}{\sin (\beta)}$
$\rightarrow$ Gravitation-Force between dM and m is: $\quad \mathrm{GdMm} \frac{\cos (\beta)}{\sin (\beta)^{2}} \quad, F(r)=\frac{d}{d r} \frac{M}{r}$
That this equation must be correct you also can see at the fact that $\cos \left(90^{\circ}\right)=0$. Because after a curve with $90^{\circ}$ angles through the room, the Gravitation-field comes to the mass m like a field who becomes not thinner anny more. So between m and dM can't be any Gravitation-Force any more. Or as well you can say that the mass m now sees a second (of course not existing) mass dM in the opposite direction. Both masses together dM and dM (irreal) make then a Gravition Force who is equal to cero.

And when $\beta>90^{\circ} \cos (\beta)<0$. So the Gravitation-field of masses at the opposite side of the Universe must produce an Anti-Gravitation-field in m . That is of course also correct. Because the field of objects at the opposite side of the Universe comes to m like the field of a mass dM who is at the opposite side of the Universe. So the Masse dM at the opposite side of the Universe must have at $m$ Anti-gravitational effects. That all that is correct you can see at this picture:


And what is now when $\beta$ becomes bigger than $180^{\circ}$ ?. As you will see later at the equation for the range of the field $\beta$ is always between $0^{\circ}$ and $180^{\circ} .0^{\circ}$ at the beginning at all (The Big-Bang, $\mathrm{F}=0$ ) and $180^{\circ}$ at the end of (Here is also $\mathrm{F}=0$ like I have painted in the picture of the Universe). So you can never see one object twice in a normal Universe. So cases in which $\beta>180^{\circ}$ you need not to consider in your equations. To solve the Gravitation-field equation upstairs now, you also must know who big $\mathrm{dM}(\beta)$ is. When the mass in the Universe always has the same thickness you get $\mathrm{for} \mathrm{dM}(\beta)$ this equation. For all that it doesn't matter if the Universe was in the past a bit thickker or not. Because in the angle $\mathrm{d} \beta$ are always almost the same objects no matter if you watch them now or at a moment who is 10 milliard years old.

That is why you get for $d M(\beta)=M(\beta) d \beta$ in this equation:

$$
\mathrm{dM}(\beta) \approx 4 \pi \sin (\beta)^{2} \mathrm{~d} \beta \quad \mathrm{Mall}_{\mathrm{al}}
$$

, mass of an $d \beta$ thick hollow-ball who sorounds $m$ in the distance $\beta / 360^{\circ} \cdot 2 \pi \bullet r$ meters, $\mathrm{Mall}_{\text {al }}=$ mass of the whole Universe

## And for $\mathbf{R}(\beta)$ you must set in this equation:

$R(\beta)^{2} \approx \sin (\beta)^{2} s(t)^{2}$
Because the distance $R(\beta)$ between two objects in the room also depends on the size of the whole two-planed hollow-ball. The radius of this hollow-ball after the time $t$ should be $s(t)$. The real room distance on the surface of the hollow-ball is then
$\beta / 360^{\circ} \bullet 2 \pi \bullet s(t)$ and the field-distance, who is so important for us, is then: $\sin (\beta) \bullet s(t)$.
When you now set all these variables in the equation for the Gravitation-Force for the mass $m$ after the time $t$, you get with the correct equation for the Gravitation-force this equation:

$$
G \frac{M}{R^{2}} m \approx \frac{\{R a n g e \text { of the field }\}}{} \frac{G \bullet 4 \pi \sin (\beta)^{2}}{R(\beta)^{2}} M_{\text {all }} \bullet m \bullet \cos (\beta) d \beta \quad \text {, with } M(\beta) \approx 4 \pi \sin (\beta)^{2} d \beta M_{\text {all }}
$$

\{Range of the field\}
$\rightarrow \quad G \frac{M}{R^{2}} m \approx \int \frac{G \cdot 4 \pi \sin (\beta)^{2} M_{a l l}}{\sin (\beta)^{2} s(t)^{2}} \cdot m \cdot \cos (\beta) d \beta$
\{Range of the field\}
$\rightarrow \quad G \frac{M}{R^{2}} m \approx \frac{G \bullet 4 \pi M_{\text {all }}}{s(t)^{2}} \cdot m \bullet \cos (\beta) d \beta$
$\rightarrow \quad G \frac{M}{R^{2}} m \approx \int \frac{G \text { Range of the field }\}}{\mathrm{s}(\mathrm{t})^{2}}$.
, uninteresting very small constants in my equation I have eliminated here again
$\rightarrow \quad \frac{G M}{R^{2}} m \approx \frac{G \bullet M}{s(t)^{2}}$ all $\bullet m \bullet \int \cos (\beta) d \beta$
$\rightarrow \quad \frac{G}{R^{2}} m \approx \frac{G \bullet M}{s(t)^{2}}$ all $\bullet m \bullet \sin (\{$ Range of the field $\})$

## Range of the field:

$\{$ Range of the field in angles $\}=\int_{0}^{\mathrm{t}} \frac{\sqrt{1-\mathrm{v}(\mathrm{t})^{2}}}{\mathrm{~s}(\mathrm{t})} \mathrm{dt}==\int_{0}^{\mathrm{t}} \frac{\sqrt{1-\mathrm{s}(\mathrm{t})^{2}}}{\mathrm{~s}(\mathrm{t})} \mathrm{dt}$
In this equation should be $1 \cong c$ and also $s(H a l f t i m e)=R_{\text {maxime }} \cong 1$. If you set here $c=1$ and $R_{\text {maxime }}=1$ or not doesn't matter, because you always will get the same results (It is a fraction whose result is always an angle!). But when you set $\mathrm{c}=1$ and $R_{\text {maxime }}=1$ you get an much easier integral. It's not completely correct, cause it can cause errors in the constants! But for the constants we also can have a look when we the function which solves this equation! Probable this function will say us then something about the constants! - For understanding this equation have a look at this picture:


To get this equation for the range of the field you have considered that the Gravitation-field in the room always spreads away with the velocity c through an ether who "sorounds" somehow the whole Universe (maybe the orange circle in the pictures I have painted to an Universe / Photon in an three-planed room). The velocity of the room (surface of the two-plamed hollow-ball) at the time should be then $v(t)=s(t)$.

Mechanical effects of space through the 4-dimensionality of the Lorenz ether:
The assumptions 4.) - 6.) it follows that the following space-mechanical effects should occur in the cosmos:


## Legend:

$V_{4} \approx C \cdot \sin (w t)$
$V_{5} \approx C \cdot \cos (w t)$
Figure 7: The visible Universe ( dotted red line), its field (one part of a 5-dimensional green hollow-
$\mathbf{V}_{\text {Orange Field string }} \approx \mathbf{C}$ ball) and an very strong old field (5-dimensional orange hollow ball).

At the speed $\mathrm{V}_{4}$ is the speed with which the field in the 4 th spatial direction on the four-dimensional mass-prone objects hollow sphere (dotted red line) can leave the crowds. As we have already seen, the length of a string field in the 4th spatial direction in the Lorenz ether can be identified with its object. Is the expansion rate of the $\operatorname{cosmos} \mathbf{V}_{5} \sim \mathbf{C} \cdot \boldsymbol{\operatorname { c o s } ( \mathbf { w t } ) \text { , then the object time of the masses on the 4-dimensional hollow sphere is shortened }}$ proportional to the factor $\sin (w t)$. In respect of the red field string, the field can escape the matter only with speed C. According to Pythagoras, one obtains the specified sizes for $\mathrm{V}_{4}$ and $\mathrm{V}_{5}$.

## Conclusions:

$\rightarrow$ Because $V_{4}$ is only points in one direction, the green hollow sphere field consisting of particles from the 3 -dimensional subspace in which the G-field is wrapped up, is only half hollow spherical. Consequently is the field of a particle in space an asymmetric semicircle in $\mathrm{R}^{4}$ (Fig. 1).
$\rightarrow$ One can assume that the "old" field of this hollow sphere constantly renewed by the field particles, which are emitted parallel to the surface of the orange field hollow sphere, with each cycle of the cosmos. Since the field particles should exit with C , the orange field is not set in motion with new field accesses of the surrounding field-free space.

Für die raummechanischen Effekte können wir nun folgende Gleichungen ansetzen:
$\{$ Room-mechanic-effects $\}=\left(1-s(t)^{\prime 2}\right)$. , here as well should be $c \cong 1$ to get an easier equation.
I think, the room-mechanics-effects in the surface of the two-planed hollow-ball must be considered that way:
Because when the room moves with the velocity $v(t)=s(t)$ ' through a 5-dimensional ether, the time in this room pasts $\left.(\sqrt{1-s(t)})^{\prime 2}\right)$ times slower than normal. A Force in this room must be then $\left(\sqrt{1-s(t)^{2}}\right)^{2}=\left(1-s(t)^{2}\right)$ times lower than a Force in a room who does not have any velocity in the ether. The first $\left(\sqrt{1-s(t)^{2}}\right)$ comes from the slower going time and the second $\left(\sqrt{1-s(t)^{2}}\right)$ comes from the $\left(\sqrt{1-s(t)^{2}}\right)$ - times lower c-velocity of all photons in this room. Or as well you can say: In this room you have the acceleration $\mathrm{a}=\mathrm{s}(\mathrm{t}) / \mathrm{t}^{2}$ through the gravitation in this room but with an $\left(\sqrt{1-\mathrm{s}(\mathrm{t})^{\prime 2}}\right)$ - times shorter time. In an other field with an "normal" time this acceleartion will seem to be $\left(1-\mathrm{s}(\mathrm{t})^{2}\right)$ weaker than an "normal" gravitational acceleration. When you now put all the former equations in one equation, you get this equation:

$$
\begin{aligned}
& \mathrm{F}_{\text {Gravitation }} \approx \mathrm{m} \bullet \mathrm{a}=\underline{\mathrm{G} \bullet \mathrm{M} \bullet \sin \{\text { Range of the field }\}} \cdot\left(1-\mathrm{s}(\mathrm{t})^{\prime}\right) \bullet \mathrm{m} \\
& \rightarrow \quad F_{G r a v i t a t i o n ~} \approx m \bullet a=\frac{G \bullet M \bullet \sin \left\{\int^{t}\left(\sqrt{1-s^{\prime}(t)^{2}}\right) / s(t) d t\right\}}{s(t)^{2}} \bullet\left(1-s(t)^{\prime 2}\right) \bullet m \quad \text {, equation for the range } \\
& \rightarrow F_{G r a v i t a t i o n ~} \approx s(t){ }^{\prime \prime}=\frac{G \cdot M \cdot \sin \left\{\int^{t}\left(\sqrt{1-s^{\prime}(t)^{2}}\right) / s(t) d t\right\}}{s(t)^{2}} \cdot\left(1-s(t)^{\prime 2}\right) \quad, a=s(t)^{\prime \prime}
\end{aligned}
$$

I think, this is now an equation in which you must set $s(t)=\sin (t)$ or $\cos (t)$, to get an function who can describe the movement of the mass $m$ in the room. I don't think that there exist other functions except these Circle-functions who are also solutions of this complicated mathematical equation. Because only $\sin (t)$ or $\cos (t)$ have these qualities: $\sin (t)^{\prime}=\cos (t) ; \sin (t)^{\prime \prime}=-\sin (t)$ and $1-\sin (t)^{2}=\cos (t)^{2}$. So when you say that $s(t)=\sin (t)$, you also get on the right side of the equation an $s(t)^{\prime \prime}$ or $s(t)$ like on the left side of your equation.
And when you then also want to consider that there are a few constants in your equation like for example: $s$ (Half-time) $=\mathrm{R}$ ( $R=$ the maxime radius of the Universe) and also the number $G \bullet M$, you must set $s(t)=R \sin (k t)$ for considering all these constants in your equation.

$$
\begin{aligned}
& s(t)^{\prime \prime} \\
& \rightarrow \quad \frac{G \cdot M \cdot \sin \left\{\int^{t}\left(\sqrt{1-s^{\prime}(t)^{2}}\right) / s(t) d t\right\}}{s(t)^{2}} \cdot\left(1-s(t)^{\prime}\right) \\
& \rightarrow \quad s(t)^{\prime \prime} \approx \frac{G M \sin \left\{\int(\sin (k t)) /(\sin ((k t)] d t\}\right.}{R^{2}}\left(1-\cos (k t)^{2}\right)
\end{aligned}
$$

> ,$\sqrt{1-s^{\prime}(t)^{2}}=\sin (t)$ in the version without any complicated constants
$\rightarrow \quad \mathrm{s}(\mathrm{t})^{\prime \prime} \approx \frac{\mathrm{GM} \sin (\{k t\}) \sin (k t)^{2}}{R^{2}}$
$\rightarrow \quad \mathrm{s}(\mathrm{t})^{\prime \prime} \approx \frac{\mathrm{GM} \sin (\mathrm{kt})}{\mathrm{R}^{2}}$
$\rightarrow \quad s(t) " \approx \frac{G M R \sin (k t)}{R^{3}}$
$\rightarrow \quad \mathrm{s}(\mathrm{t})^{\prime \prime} \approx \frac{\mathrm{GM} \mathrm{s}(\mathrm{t})}{\mathrm{R}^{3}}$
$\rightarrow \quad K=\frac{\sqrt{\mathrm{GM}}}{\sqrt{\mathrm{R}^{3}}}$
That means that $t$ must become $\sqrt{ } \mathrm{R}^{3} \pi / 2$ when $s(t)=\sin (k t)$ should make one roll in the room. When you then also take for VGM
$G=6 \cdot 10^{-11}$ and $M_{\text {Universe }} \approx 10^{54} \mathrm{~kg}$ (out of a physic-book) and for $R \approx 10 \bullet 10^{9}$ Lightyears (the maxime radius of your Universe), $\sin (k t)$ needs for one roll several milliard years (I think something with 100 milliard years for one roll in the room they have told me at home). So this equation really makes sense! She is no game with numbers.
Moreover this equation says, that $\mathrm{c}=\mathrm{v}(0)=\mathrm{Rs}(0)^{\prime}=\mathrm{R} \sin (0)^{\prime}=\mathrm{RK} \cos (0)=\mathrm{RK}$, because at the beginning of all (The BigBang) certainly everything will start with the velocity c . Out of this equation you can get then the maxime radius of the Universe. Because R•K must be equal to $c$.

```
        \(R \bullet K=c\)
\(\rightarrow R \frac{\sqrt{G M}}{\sqrt{R^{3}}}=c\)
\(\rightarrow \frac{\sqrt{G M}}{\sqrt{R}}=c\)
\(\rightarrow \quad \frac{G M}{c^{2}}=R\)
\(\rightarrow \quad R \approx 70\) Milliard Light-years \(\quad\), with \(G=6 \cdot 10^{-11}, M \approx 10^{54} \mathrm{~kg}\) and \(\mathrm{c}=300.000 .000 \mathrm{~m} / \mathrm{s}\).
```

And this second equation also makes sense. Because you get here out of well known physical numbers an new unknown physical number who has an interesting size - it is neither too small nor too big!

## Ergänzung:

Genau genommen ist die oben betrachtete Gleichung für die Gravitationskraft $F_{\text {Grav }}$ im Weltall eine Differentialgleichung in der man erst nach der richtigen Lösungsfunktion suchen muss. Die korrekte zugrunde liegende Differentialgleichung kann man unten einsehen. Links des Gleichheitszeichens dieser Gleichung stehen die Terme - $\mathrm{ms}(\mathrm{t})$ " $=\mathrm{F}_{\text {Grav }}$, eine negative Bremskraft, und rechts steht nach $F=m$ a, die Gravitationskraft $F_{\text {Grav. }}$. Des Weiteren wurde von mir in dieser Gleichung wie oben auch bereits überall die Geschwindigkeit C der Einfachheit halber auf 1 normiert. Der physikalische Erkenntnisgewinn ist derselbe, man kann sich so aber sehr viel Schreibarbeit sparen.

```
        \(-\mathrm{ms}(\mathrm{t})^{\prime \prime}=\mathrm{F}_{\mathrm{Grav}}\)
                        \(t\)
                            \(\left(\int \sqrt{1-s^{\prime}(t)^{2} / s(t)} d t\right)\)
\(\Leftrightarrow \quad-\mathrm{ms}(\mathrm{t})^{\prime \prime}=\mathrm{F}_{\text {Gravitation }}=\frac{\left\{\int \mathrm{GMm}\left(4 \pi \sin ^{2}(\beta)\right) \cos (\beta) \mathrm{d} \beta\right\}}{\sin ^{2}(\beta) \mathrm{s}(\mathrm{t})^{2}} \cdot\left(1-\mathrm{s}(\mathrm{t})^{\prime 2}\right)\)
                                    t
                                \(\left(\int \sqrt{1-s^{\prime}(t)^{2} / s(t)} d t\right)\)
\(\Leftrightarrow-\mathrm{m} \cdot \mathrm{s}(\mathrm{t})^{\prime \prime}=\frac{\mathrm{GMm} \cdot 4 \pi \cdot\left\{\int\left(\sin ^{2}(\beta)\right) \cos (\beta) \mathrm{d} \beta\right\}}{\sin ^{2}(\beta) \mathrm{s}(\mathrm{t})^{2}} \cdot\left(1-\mathrm{s}(\mathrm{t})^{\prime 2}\right)\)
    \(\left(\int \sqrt{1-s^{\prime}(t)^{2} / s} \overline{(t)} d t\right)\)
\(\Leftrightarrow \quad-s(t)^{\prime \prime}=\frac{G M \cdot 4 \pi \cdot\left\{\int \cos (\beta) d \beta\right\}}{s(t)^{2}} \cdot\left(1-s(t)^{\prime 2}\right)\)
\(\left.\Leftrightarrow \quad-s(t)^{\prime \prime}=\frac{G M \cdot 4 \pi \cdot \sin \left\{\int\left(\sqrt{1-s^{\prime}(t)^{2}}\right) / s(t) d t-0\right\}}{s(t)^{2}} \cdot\left(1-s(t)^{\prime}\right)^{2}\right)\)
```

In dieser Gleichung muss man nun nach einer Lösungsfunktion $s(t)$ für diese Differentialgleichung suchen. Anhand der winkelfunktiontypischen Terme in dieser Gleichung, kann man bereits vermuten, dass als Lösung dieser Differentialgleichung nur Funktionen der Form $s(t)=a \cdot e^{i K t}$ in Frage kommen. Zusammen mit der besonderen Anfangsbedingung für $s(t)$, dass $\mathrm{s}(0)=0$ zum Zeitpunkt $\mathrm{t}=0$ gelten muss, folgt dass insbesondere sogar nur die Sinus-Funktion als mögliche Lösung in Frage kommt. Denn sinus $(0)=0$ nicht aber $\cos (0)$. Wir setzen also z.B.: $s(t):=R \cdot \sin (k t) \mathrm{mit} K=1 / \mathrm{R}($ eigentlich $\mathrm{C} / \mathrm{R}$ aber C haben wir ja gleich 1 gesetzt) und schauen nach ob diese Gleichung in der Tat unsere Differentialgleichung lösen kann. Man erhält zunächst für die einzelnen Ableitungen von $\mathrm{s}(\mathrm{t})$ :
$s^{\prime}(t)=1 \cdot \cos (k t) \quad s^{\prime \prime}(t)=-R(1 / R)^{2} \sin (k t)$
Eingesetzt in obige Differentialgleichung erhält man dann:


Wie man sieht ist $s(t)=R \sin (K t)=R \sin (1 / R t)$ eine Lösung obiger Differentialgleichung. Aufgrund der Anfangsbedingung an $s(t)$ ist diese Lösung sogar eindeutig bestimmt. Mit Hilfe dieser letzten Gleichung erhält man nun sogar noch eine Beziehung zwischen $K=C / R$ und $4 \pi G M / R^{3}$. Es muss anscheinend auch noch gelten: $\mathrm{K}^{2}=(1 / R)^{2}=4 \pi G M / R^{3} \rightarrow R=G M / 1 \mathrm{bzW}$. $\mathrm{GM} / \mathrm{c}^{2}$ mit nicht der Einfachheit halber auf 1 normierter Geschwindigkeit (vgl. oben).

## 3. The photon model:

In our movies photons were shown as orange circles with a gray arrow in it (see Figure 8). The orange circles should it be in a position to unroll outer flat fields like a cart wheel a predetermined distance. This kind of representation of the photon was referring to a 3-dimensional phase space, which should be perpendicular to a 3dimensional momentum space. At total photons were also parts of a 6-dimensional space.
From our theory of everything (see below) was also apparent that the world around us was a fractal with infinite fine structure of the above mentioned hollow spheres, to be observed 4 -dimensional and 5 -dimensional. In plain English, a photon should also be another universe, but on a much smaller level, which in turn was again made up of photons, whose sizes are much smaller than that of our photons and on and on indefinitely, both upwards and downwards.
For this fractal model of the world has been noted here that it is 6-dimensional and should be particularly pulse and phase space, which would always displayed inversely to each other. When changing the order of the universe after photon or vice versa, so it should come to an inversion of 3-dimensional phase space and 3dimensional momentum space. This is an important point, because a running back 3-dimensional subspace in the photon field can span any space (such as, for example our 3-dimensional reference space) with extensive fields. This is only possible if our 3-dimensional reference space spanned by a phase space is, at the photon level with dimensions of 4 - equal to 6 . Our dimensions 1-3 correspond to photon level, so the dimensions 4-6. This may again because they do not run back in the span a broad field space, which provides for a greater level terms again a so-called three-dimensional momentum space.


Figure 8: Representation of a photon in 3-dimensional phase space. An orange wheel that rolls off a flat orange string. In our movies such wheels rolling on either orange strings or remained at some crossroads, "hang" at the top crossed by another string. At the roll on a flat field outside a white string in the orange arrow moving wheel under constant contraction and expansion as a classical sine circle.

If you compare our photon model with my previously derived model of the universe is the similarity of the two models at once. In six-dimensional representation (representation in phase space), the orange 5-dimensional field-hollow sphere made of old field to a circle (see Figure 8). And the 4-dim red hollow sphere on whose surface objects, including the weighted-G field that may be in the six-dimensional only as a dot (the gray two points in Figure 8). The exact position of the 4-dimensional mass-prone sub-space in the orange field, circle, although not really represented in the six-dimensional, but can be at least as a dashed arrow (Fig. 8) indicate. The 5-dim green hollow spherical field from the 4-dim hollow spherical mass-prone area can however be shown as a green semi-circle in the orange circle (see Figure 8). If you are not interested in the current position of the 5 -dim green hollow sphere in the orange field, circle, you can give the inner surface of the orange circle a green color (see Figure 8b) as a sign, that this space is filled with a field occasionally.


Figure 8b: Representation of the photon in the six-dimensional. The green area is drawn to represent the level, the occasional green of the hollow spherical field of mass-prone 4-dim red.
The comparison of a photon with a cosmos in miniature seems reasonable on the basis of the assumptions made so far. In order to photons as usual - just as we did in our system - you need to get around the following further
assumptions. Using these assumptions, we will show later, in fact, that matter is composed entirely of photons and the previously measured physical effects (such as spin, charge, mass, etc.) from our particle model will be derived.

The photon model is able to explain well-known properties of photons, as we shall see. The wave-particle duality e.g. follows directly from the assumption that each periodic with period T of the photon replaces a green 5 -dim field hollow sphere with C and removed from their origin. Such a periodic field replacement of the green hollow sphere field would explain the known self-interaction of the photon with itself, such as the deviation of individual photons in a gap. The overlapping field is hollow spheres in the vicinity of the actual photon-particle effect such as a "leading medium" on the photon. This is immediately clear when one considers that the internal 3-dimensional subspace is subject to gravitational effects in the photon and the green detached hollow field spheres, which have become detached from this subspace, should contain residual gravitational fields.

## Commend in respect to 3-dimensional mass-prone sub-spaces:

The calculations for the motion dynamics of a universe we have seen, that in the 3-dimensional spaces wrapped up G-fields do not interact with each other in three-dimensional spaces, which are perpendicular to each other. Is the angle a between the two spaces less than $90^{\circ}\left(\mathrm{a}<90^{\circ}\right)$ the two spaces attract each other gravitationally. If however, the angle a between two 3 -dimensional spaces is greater than $90^{\circ}\left(a>90^{\circ}\right)$ the spaces repel each other. At an intersection between two 3-dimensional spaces, this should lead to physical effects, which result in mutual perpendicular erections of adjacent 3-dim. spaces on each other (see Figure 9):


Fig. 9: Fields erect perpendicular to each other: The black lines in this diagram are intended to represent 3dimensional spaces with wrapped up $G$ fields inside. The green bar above is, is a portion of the total 4dimensional field of the massive objects in the affected areas (see Figure 1). Only where the fields of both chambers are penetrating each other, ie above the intersection point $S$ of the two black lines, it can also come to interactions between the two spaces. Because of ( $a<90$ ) the BS and the CS section attract each other (the only sections with superimposed fields). The result is a movement that straightens both spaces perpendicular to each other. In the case where $a>90^{\circ}$ is obtained, however, a repulsive force exerts between the two sections, which also leads back to a vertical erection of both 3-dimensional spaces (. mutually perpendicular fields are in an energetic minimum).

## Assumptions in order to deal with photons as physical objects:

7.) A photon is a cosmos in miniature. In it the same physics are valid as in the "big" universe, with the difference that all benchmarks are shrunk by a fixed factor. The size of this factor is of no interest for us for the observations made here.
8.) If two different fields meet "flat" - that is almost parallel to each other - they should "stick together" at their point of contact. This will cause the circular fields to roll like a spinning wheel a fixed distance all along on stretched flat fields.
9.) As in the above remark on 3-dimensional mass-afflicted subspaces indicated, photons should be able to pass in an energetically more favorable energy level, if their fields are perpendicular to each other.
10.) In the cosmos photon 3 -dimensional momentum space and 3 -dimensional phase space are interchanged, and this geometrically micro cosmos stands with its fields and subspaces vertically on top of ours.

Derivation of the photon equation $\mathrm{E}_{\text {Photon }}=\mathbf{C} / \lambda \cdot \mathrm{h}$ :
In the chapter "Derivation of the 4-dimensional universe in our sinus periodicity of the Lorenz ether" we have assumed the equation for the G-forces that make the universe eventually swing (....).

$$
\begin{aligned}
& F_{\text {Grav }}=G \frac{\mathrm{M}}{\mathrm{R}^{2}} \sin (\mathrm{Kt}) \quad \text {, with } \mathrm{K}=\frac{\sqrt{\mathrm{GM}}}{\sqrt{\mathrm{R}^{3}}} \\
& \Rightarrow \quad F_{\text {Grav }}=\underline{G M} \sin (\mathrm{Kt}) \\
& \text { (R) } \mathrm{R} \\
& \Rightarrow \quad F_{\text {Grav }}=\underline{(\underline{G M})} \operatorname{R} \sin (\mathrm{Kt}) \quad \text {, with } \mathrm{R}=\underline{\mathrm{GM}^{2}} \text { compare chapter "The cosmological model" }
\end{aligned}
$$

$$
\begin{array}{lll}
=> & \mathrm{F}_{\text {Grav }}=\frac{\mathrm{C}}{\mathrm{R}} \cdot \mathrm{C} \sin (\mathrm{Kt}) & \\
= & \mathrm{F}_{\text {Grav }}=\frac{\mathrm{C}}{\mathrm{R}} \cdot \mathrm{C} \cdot 1 / 2 \pi & \text {, for time-periods T' } \gg \mathrm{T} \text { of one period of the Photon } \\
\Rightarrow & \left.\mathrm{F}_{\text {Grav }}=\frac{\mathrm{C}}{\lambda} \cdot \mathrm{C} \quad \text {, with } 2 \pi \mathrm{R}=\lambda \text { (with } \lambda=\text { wavelength of the Photon }\right)
\end{array}
$$

We now add up the occurring gravitational forces F over a given distance $\Delta \mathrm{s}$. Since all moving mass affected by the photon subspaces in full orange field on average over time with the same velocity $V=1 / 2 \pi \cdot C$, put them in a certain time back and always the same distance $\Delta \mathrm{s}$ (when there are no space-mechanical effects). For every fixed
unit of time $\Delta T$ is thus always the same line .s through which now a given photon dependent energy $F_{\text {grav }}$ acts. If we add to these forces over time intervals $\Delta t \gg T$, we obtain the activity per photon in a fixed period of time. This result depends on the gravitational forces in the photon as follows:
$\mathrm{W}_{\text {Grav }}=\frac{\mathrm{C}}{\lambda} \cdot \mathrm{C} \cdot \Delta \mathrm{s} \quad$, mit $\Delta \mathrm{s}=$ Const. for each Photon with period T
Since $C$ and $\Delta s$ are fixed constants, we may take
$\mathrm{h}:=\mathrm{s} \cdot \mathrm{C}$ a size which can better set by definition as $6.626 \ldots \cdot 10^{-34} \mathrm{~J} \mathrm{~s}$
For the gravitational effects occurring in the photon we obtain the following equation:

$$
\mathrm{W}_{\text {Grav }}=\frac{\mathrm{C}}{\lambda} \cdot \mathrm{~h} \quad \text {, with } \mathrm{h}=6,626 \ldots \cdot 10^{-34} \mathrm{~J} \mathrm{~s}
$$

So as we see, the photon energy gets bigger and bigger the smaller the photon-string is, cause the gravitational force in a 3-dimensional space is stronger at low than at big distances distances. So small photon can hold itself on other strings better than big ones. So they can push away other photon photon better than big. And cause the interior gravitational force of the photon-string is the most important force Which can leave a bit its string - by being connected with a nother string - we need not to consider further forces.

Derivation of the rotational energy of a photon $\mathbf{h}=\mathrm{h} \cdot{ }^{1 / 2 \pi}$ :
The photon field is rolling off a flat outer string with the speed of $C$ or $K$. His extensive orange field has therefore adopted for assumption 8.) the external field string 1:1 adhere and roll him along like a wheel, a fixed distance. The oscillating with a sine-period 3 -dimensional subspace in the photon in which a G -field is wrapped up, therefore, has an angular momentum L , which depends on the radius of the respective photon. Thus we have:

$$
\begin{aligned}
& \mathrm{L}_{\text {Photon }}=\mathrm{P}_{\text {Photon }} \cdot \mathrm{R} & , \text {, cause } \mathrm{P}_{\text {Photon }} \perp \mathrm{R} \\
\Rightarrow & \mathrm{~L}_{\text {Photon }}=\mathrm{P}_{\text {Photon }} \cdot \mathrm{R} & \text {, with } \mathrm{P}_{\text {Photon }} \mathrm{h} / \lambda \\
\Rightarrow & \mathrm{L}_{\text {Photon }}=\mathrm{h} / \lambda \cdot \lambda /(2 \pi) & \text {, with } \lambda=2 \pi \mathrm{R} \\
\Rightarrow & \mathrm{~L}_{\text {Photon }}=\mathrm{h} /(2 \pi)=\hbar &
\end{aligned}
$$

So as you see each Photon-Quant must have the Rotation-Energy $\mathbf{L}=\mathbf{h}=\mathbf{h} \cdot{ }^{1} / 2 \pi$


## 4.The electron model:

The following images come from movies in our base, which I watched there in parts also seen in glass planes. The objects displayed here show objects that were - as far as I know-declared in these movies as an electron. These movies were also commented, but unfortunately I can only recall them very poorly, so that this information is not much worth. It was somehow about a number of 4.5 and several "circles" of a 5 -dimensional structure in which smaller circles span down by a factor of 4.5 , thus they got always smaller. The individual circular planes stood perpendicular on each other and stood by the small circles could rotate in the large circles. For a derivation of a model electron this information has not enough content. The here presented electron model of mine, I derived from our model of the photon, which I can remember much better.



To derive our spin $1 / 2$ particle model, we need the assumptions 7 ); 8); 9) and 10 ) on the physical properties of photons. Then we examine the polarization potential of a 4 -dimensional hollow sphere, because we have assumed in 9.) that the photon fields, which stand perpendicular to each other, turn into a very favorable energy level. A 4-dimensional hollow sphere will have polarization 4, it is therefore able to carry on their surface deflections in four respective mutually perpendicular spatial directions. If there is a highly unstable cosmos actually deflections in these four directions in space that are so serious that secrete themselves in all four directions of space each separate smaller photon, so the whole system should now turn into an energetically more favorable level. Because the basis of assumption 9.) should be the areas in all of these 8 photons perpendicular to each other.

More photons - in addition to these 8 - should be absorbed or emitted by the other 8, because their fields can't be perpendicular to the other 8 . This observation, that a universe can always be split into 4 other universes (with total of 8 anti universes), is crucial for the derivation of our electron model. We identify now an agglomerate of four photons whose fields are perpendicular to each other each with 4 different colored gluons. Each color corresponds to a gluon charge of a particular spatial orientation of its field. Such an agglomerate of four photons whose fields are perpendicular to one another, should look like this:

Elektron in $R^{4}$ :


Figure 10: An electron model are from 4 photons whose fields are perpendicular to each other. For the vertical condition (fields are mutually perpendicular) can be inferred try that all four photon fields perpendicular to the external field-filled three-dimensional reference space (plane E in Figure 11) erect. The red, blue and green at the same photon can also roll the 3-dimensional space as a reference photon field one string, since these geometrical reasons the point $S$ (see Figure 10) lie flat on a plane E. Roll out of condition 7) (photons from external fields), it follows that the plane E with the 3-dimensional field-filled reference area will be identical. The fourth yellow photon can't roll off the level $E$, for geometric reasons. The rolling motion of the photon must be yellow geometric reasons in a field string, the 4th in the spatial direction is aligned.

## Consequences of this electron model:

$\rightarrow$ For geometric reasons, are all four photons in the electron only in a point $S$ (see Figure 10) on the plane E (3-dimensional field-filled reference space). From the 3-dimensional space of reference, the electron looks so like a true point particles, although it is not really.
$\rightarrow$ As the red, green and blue photon field circle tangent to the plane E (see Figure 11) lie, they can only regard this level of $\mathrm{C} / 2$ and not roll with C. For, 1 for adoption, must not move relative to each other fields with velocities $\mathrm{V}>\mathrm{C}$ or K . S , the rolling movement of the red, green and blue photons be balanced, because otherwise the electron would have a pulse $P$ with respect to the field in the plane $E$. It follows from this roll off symmetry that the red, green and blue field circle of the plane E seen to rotate either clockwise or counter-clockwise (see Figure 10, the plane E, one can think here perpendicular to the angular momentum $L$ of the electron through the point S).
$\rightarrow$ The electron spin is either up or down. A positron, we will see how we can see later, can identify with an "electron" that is below the level E (reference area), and an electron with an electron that is located above the plane $\mathrm{E}(\rightarrow \mathrm{Q}=+1 /-1)$. There are thus four electrical symmetries in this model.


Fig. 11: The red, blue and green photons are in the field circuit common point of intersection $S$ on the plane tangent to $E$ (3-dimensional reference space). Because of Assumption 1) they can just roll with the rotation speed of $C / 2$ to each other.
$\rightarrow$ The angular momentum of the yellow photon is oriented in a plane which is perpendicular to the plane E (3-dim reference space). Only the green, blue and red photon rotate in a plane which partly runs parallel to the plane $E$. To calculate the angular momentum of the electron, which is measured in $R^{3}$, we need only the angular momenta of the red, green and blue circles photon field considered. Since these only rotate with $\mathrm{C} / 2$, these photons only half Photo angular momentum, as $L_{\text {Photon }}=h / 2 \pi$.The total angular momentum of photons is $L_{\text {Electron }}$ these three geometric reasons (see Figure 10) is exactly vertical to the plane $E$, thus takes place in a space plane that is parallel to the plane. In the 3-dimensional reference space spanned by the plane E in Figure 11 is, therefore, the angular momentum $L_{\text {Electron }}$ fully measurable. As the red, green and blue circle each photon field perpendicular to each other, the result of $L_{\text {Electron }}$ is $h \cdot(\sqrt{ } 3) / 2$. Rotate the yellow photon field circuit also with $C / 2$, which can be assumed is the total angular momentum of the electron in the $\mathrm{R}^{4}$ interesting to note that normal photon angular momentum, there is: LElectron, $\left(R^{4}\right)=4 \cdot 1 / 2 \cdot h / 2 \pi=h / 2 \pi$. Thus, it seems in the formation of an electronpositron pair of two photons to retain the angular momentum of each photon.
$\rightarrow$ as red, green, blue and yellow photon field circuit, we identify four different color charges of the gluons.
$\rightarrow$ The electron and the positron in our model, the typical spin $1 / 2$ particle properties. From the above model can predict the existence of other similar Spin $1 / 2$ particles. E.G. it could still give Spin $1 / 2$ particles that are completely up to a gluon in $R^{3}$. Since these particles no distinction in above or below the plane $E$ (3dimensional reference space) would be possible, should such Spin $1 / 2$ - particles have no charge Q. In addition, the photons were involved due to their location in $\mathrm{R}^{3}$ significantly more similar than ordinary photons, the photons in the electron. Lack of charge ( $\rightarrow$ less interaction with the surrounding air) and greater similarity photons could lead to a lack of masses - like a neutrino?
$\rightarrow$ The electron symmetry reasons should always occur together with its antiparticle. Because only the electron and positron results, gluons exactly 8 , so that for every one of the four gluons anti gluon are - so you have 4 colored gluon / anti gluon currents.
$\rightarrow$ Assuming 14.) we will demand that the mass of a particle is proportional to its number of gluons, which are not bound to another particle (binding gluons are). The effects of the non binding gluons must then be added vectorially, in order to obtain the mass of the particle. After accepting 14.) we will assume that leptons are used in only one of the 4 gluons binding to another particle. In the case of a single lepton, this could for example be a virtual additional lepton. When lepton so you have only a total of 3 non binding gluons. For the symmetry axis of the leptons through the point $S$ (see Figure 10), force $F$ and distance $S$ by a factor $1 / \sqrt{3}$ shortens (cube geometry). The 3 non binding gluons the electron therefore have regard to the symmetry axis of the lepton reduced by the factor $1 / 3$ effect. Therefore applies to the total mass $\mathrm{M}_{\text {Electron: }}$
$\mathrm{M}_{\text {Elektron }}=1 / 3 \cdot 3 \cdot \mathrm{M}_{\text {Gluon }}=\mathrm{M}_{\text {Gluon }}$
Therefore is: Comptonwellenlänge von $\lambda_{\text {Elektron }}=\lambda_{\text {Gluon }}$

## Mesons of spin $1 / 2$ particles:

In order to construct useful mesons and hadrons from our spin $1 / 2$ particle electron model, we again need some assumptions that seem logical, but can probably be proven only at great computational effort. This should not be done here. Here are the solutions will be mentioned only briefly, to show the ether physics is not a dead end. As I will show in the chapter "resonances in the electron" quarks seem to be ordinary electrons or positrons, but in a higher state of resonance. Such electrons in a higher state of resonance, I will refer to below as "excited" electrons. By coupling of these particles to each other, are some of their photons in photonic binding (binding gluons) convert, so that the electrons lose some of their charge ( $+2 / 3 ;+1 / 3 ;-1 / 3$ and $-2 / 3$ charges in the quarks). Such a quark model can be derived based on the following assumptions in our model electrons:
11.) An electron can bind another electron, with one or two gluon / anti gluon currents (in one exceptional case appear at a meson and three-gluon anti gluon currents in the binding to occur). Binding to another electron thus serve currents of the form: One r/r current (Red/anti red) connects two electrons or two currents of the form $\mathrm{b} / \underline{\mathrm{b}}$ and $\mathrm{r} / \underline{\mathrm{r}}$ connect two electrons. It can develop also currents of the form $\mathrm{r} / \mathrm{g}$ or $\mathrm{b} / \mathrm{r}$ train, etc. A whole, are involved in the interaction but always only one or two streams involved (2 or 4 gluons). The range $R$ is this interaction: $R \sim \alpha$ (the compton wavelength $\alpha$ of each electron). - Continue to apply that between 3 electrons always 3 gluon / anti gluon current form ( $\rightarrow$ hadrons).
Bosons, however, seem to consist of four leptons, but they are also only about three gluon / anti gluon streams bound to each other.
12.) The binding of an electron (positron) to another electron (positron) in a meson should be banned. Mesons should therefore only be able to consist of a positron and an electron. In the following we will refer to such as quarks bound electrons. Mesons from a $+2 / 3$ quark $(-2 / 3)$ and a $+1 / 3$ quark $(-1 / 3)$ shall be created form the bonds of symmetric quark $(-1 / 3 ;+1 / 3)$ or $(-2 / 3 ;+2 / 3)$ by electron or positron capture like the neutron.
13.) Red, green and blue photons currents in an electron, serve to bond to another electron go, the particles as the charge lost (field circuit for occupied binding photon). Yellow streams of photons do not occur as a charge in appearance (alignment in a fourth spatial direction! No resting of the field circuit on the 3dimensional reference space!).

## 5. Hadrons and mesons from leptons:

$\operatorname{Meson}\left(+{ }^{2} / 3 ;-{ }^{2} / 3\right)$

„excited" Elektron (-2/3)
„excited" Positron (+2/3)


Figure 12: Meson from an excited electron and a positron excited in view of the reference plane $E$. This coupled electron and positron can be together, both particles should not touch the plane E with the point $S$, but with the points $A$, Band $C$ (see Figure 10), since one is above the plane $E$ and the other below. These "abnormal" situation with regard to the level of E prevent likely that electron and positron annihilate each other instantly.
Between electron and positron are 2-colored streams of a green / anti-green and a yellow / yellow anti gluon pair have formed. Assumption 13.) implies, that both electrons have only $2 / 3$ of their actual charge $Q$ can $(\rightarrow$ total charge $Q=0$ ). Since both electrons and at the level $E$, are their fields that are perpendicular or parallel to each other, their spins are either parallel or anti parallel.
$\operatorname{Meson}(+1 / 3 ;-1 / 3)$

„excited" Positron ,,excited" Elektron


Figure 14: In this meson have been distributed among all four binding gluons, green and blue streams. An electron is with the points $A, B$ and $C$ on the field $E$, the other with the point $p$ follows from assumption 13) that possess both electrons this time only $1 / 3$ of its actual charge $Q$ can ( $\rightarrow$ total charge $Q=0$ ). Since the two spin $1 / 2$ particles together so lie that their fields are perpendicular to each other, their spins are either parallel or anti parallel.

Hadron $(+2 / 3 ;+2 / 3 ;+2 / 3)$


Figure 15: In this hadron six binding photons have formed, three of which are yellow binding gluons. All three electrons touch with the points $A, B$ and $C$, the $E$ level of the 3 -dimensional reference space. Because of assumption 13.) all three the positron have the charge $(+2 / 3)(\rightarrow$ total charge $\boldsymbol{Q}=+2)$. Since all three spin- $1 / 2$ particles are so close together that their respective fields are perpendicular to each other, their spins are either parallel or anti parallel.

Hadron $\left(+\frac{1}{3} ;+1 / 3 ;+{ }^{1} / 3\right)$


Figure 16: In this hadron all six binding photons are distributed in green, blue and red gluons. From assumption 13.) follows, that all three of the positron have the charge $(+1 / 3(\rightarrow$ total charge $\boldsymbol{Q}=+\mathbf{1})$. Since all three spin $1 / 2$ particles are so close together that their respective fields are perpendicular to each other, their spins are either parallel or anti parallel.

Hadron $\left(+^{2} / 3 ;+{ }^{2} / 3 ;-1 / 3\right)$

„excited" Elektron (-1/3)
Figure 17: In this hadron, all three electrons with the points $A, B$ and $C$ on level $E$. And between the positron and electron in each case a yellow gluon is involved in the bond. From assumption 13.) follows again that the two positrons have the charge $Q=+2 / 3$ and an electron has the charge $Q=-1 / 3,(\rightarrow$ total charge $\mathbf{Q}=+\mathbf{1})$. The exchange of electron and positron gives the hadron $(-2 / 3 ;-2 / 3 ;+1 / 3)$ with the total charge $\mathbf{Q = - 1}$ (see Figure 18). Since all three spin- $1 / 2$ particles in these hadrons are next to each other that their respective fields are perpendicular to each other, their spins are either parallel or anti parallel.

Hadron $\left(+1 / 3 ;-2 / 3 ;-{ }^{2} / 3\right)$


Figure 18: In this hadron again with all three electrons are the points $A, B$ and $C$ on the plane $E$. We have here a positron, the two coupled electrons (total gluon again 3 / anti gluon currents). From assumption 13) follows again that the two electrons, the charge $Q=-2 / 3$ and one positron, the charge $Q$ $=+1 / 3(\rightarrow$ total charge $Q=-1)$. Since all three spin- $1 / 2$ particles in these hadrons are next to each other that their respective fields are perpendicular to each other, their spins are either parallel or anti parallel.

Note: The creation of a hadron with total charge $Q=0$, eg the formation of the neutron ( $+2 / 3 ;-1 / 3 ;-1 / 3$ ) seems to be obviously not possible in our scheme. This corresponds to the experimental observation that the neutron is actually a proton, which has captured an electron.

Boson ? $\left(+\frac{2}{3} ;+{ }^{2} / 3 ;+\frac{2}{3} ; 0\right)$


Figure 18b: In this boson? also all 6 binding gluons have distributed themselves on green, blue and red gluons. From assumption 13) follows from the fact that the positrons have three charge ( $+2 / 3$ ) and a charge $Q=0$. The total charge of the boson is thus $Q=+2$. If this particle is made of excited electrons, it would have the charge $Q=-2$. By electron or positron catches charges $Q=+1,0$, - 1 may also occur.

## 6. The quark model:

For calculation of resonance effects in the field of the electron circles, we need the following assumption:
14.) The mass $M$ of a particle (meson, hadron, lepton) is identical to the vectorial total effect of all particles contained in non binding gluons. So gluons, which are used for binding to another particle (binding gluons), do not contribute to the mass.

Consequence of assumption 14.):
$\rightarrow$ A lepton consists of 4 gluons, one of which is apparently bound to a virtual electron or positron. For the mass of the lepton thus contribute only 3 non binding gluons. To calculate the lepton mass we need to add the calculation expressions of the lepton mass downstream that is a factor (3/3).
$\rightarrow$ A meson consists of a total of 8 gluons. Of these, 6 or 4 gluons are non binding gluons, depending on whether both electrons bound by a gluon / anti gluon stream or two such streams. From assumption 14.) follows, therefore, that to the calculation expression of the mass of a meson is always to add either a factor of $(6 / 3)$ or of ( $4 / 3$ ) downstream (A meson has thus always $6 / 3$ or $4 / 3$ times as much mass as a frequency equal lepton).
A hadron has a total of 12 gluons. Of these, a total of 6 are always binding gluons (gluon bound together by more than 3 gluon/anti- gluon streams). The hadron has always non binding gluons 6 . For the calculation of hadron masses, one must therefore by assumption 14.) of the hadron mass calculation formula always downstream, the factor (6/3).
A boson apparently consists of four leptons minus a gluon, the gluon are also a total of 3 / anti gluon streams bound to each other. There are thus in the boson gluon 15.15 minus 6 binding gluons results in 9 binding gluons. For the calculation of the mass of a boson must always be added to the calculation formula the factor $(9 / 3)$ downstream.
15.) In the 4 gluons of the electron can orbit other smaller gluons. They go so that their orbits are integer multiples of the wavelength of the gluon in which field circle they (1.Quantum condition). Further rounds are preferred which are odd multiples of the frequency of the external gluon. This first Quantum condition results in resonance frequencies of the form:
$n \cdot f_{\text {compton }}$ with $n=1 ; 3 ; 5 \ldots$ etc. can occur.
Reason: Odd-numbered multiples of the compton frequency are obviously preferred, presumably because the gluon field only after every second back period is the same. This is probably due to that matter in the 4th direction in space has a preferred direction (matter / antimatter symmetry). At the beginning of the period, the matter in a 3-dimensional mass afflicted subspace of the gluon field, therefore, first within the orange field circle (see Figure 7). After half a period length then it is because of the green field circuit (see photon model) is always carried, outside the orange field circle - where it is also to be found first after the 2nd Big Bang is. Only after the third Big Bang (3. Period) it is back to the beginning outside the orange field circle.
16.) Within the four gluons of the electron field-free space. In the gluons circulating resonance gluons may therefore, as they roll off always external fields with C, may achieve by simple field take away effects rotational speeds $\mathrm{V}>\mathrm{C}$. These orbital velocities $\mathrm{V}_{\text {orbit }}$ are odd multiples of $\mathrm{C} / 2$, since the full gluon rotates itself with $\mathrm{C} / 2$ (non-relativistic velocity addition in the field-free space! . (2. Quantum condition) It is so:
$V_{\text {Orbit }}=C / 2 \cdot n$, where $n=1,3,5, \ldots . .$.
This second Quantum condition means that the orbits of the orbiting resonance photons are shortened by a factor of $1 / 2 ; 3 / 2 ; 5 / 2,7 / 2 \ldots$ etc. These factors therefore need to be multiplied by the frequencies $\mathrm{f}_{\text {resonance }}$ to calculate the actual shortening of the wavelength of the resonance gluons after the 1 st quantum condition.
17.) The quark properties ( $u / d, s, c, b$ ) are resonances that affect all four gluons in the electron. The higher the respective resonance frequency is, the more the discrete energy levels of the quark colors move of $\mathrm{u} / \mathrm{d}=1$ on $\mathrm{s}=1$ to $\mathrm{c}=1$ and finally to $\mathrm{b}=1$ (see Figure 20). The resonance $\left(\frac{3}{2} / 2\right)^{4}=5,06 \cdot \mathrm{f}_{\text {compton }}$ is $\mathrm{s}=1$; $\left({ }^{4} / 2\right)^{4}=16,0 \cdot \mathrm{f}_{\text {compton }}$ is $\mathrm{c}=1 ;(5 / 2)^{4}=39,06 \cdot \mathrm{f}_{\text {compton }}$ is $\mathrm{b}=1$ und $(6 / 2)^{4}=81,0 \cdot \mathrm{f}_{\text {compton }}$ will be $\mathrm{t}=1$. The $u / \mathrm{d}$ quark only seems to have the highest value with: $(9 / 2)^{4}=410,0 \cdot f_{\text {compton }}$ at leptons ( 4 gluons) and $(9 / 2)^{5}=$ $1845 \cdot f_{\text {compton }}$ mesons and hadrons ( 5 gluons). Since the $u$ / d quark resonance is superimposed by all other properties of the quark, it is the lowest energetical state of an excited quark.
The energy of the quark excitations can be either distributed evenly to all 4 or 5 or participating gluons or also focus on a single gluon. Is it focused on a single gluon, the gluon $\mathrm{f}_{\text {compton }}$ gives its whole energy of all charged resonances $E_{\text {resonance }}>E_{0} \sim f_{\text {compton }}$ and thus give rise to the corresponding quark excitation on all four gluons.
18.) In addition to the in assumption 17.) mentioned quark excitation resonances, are also so called floats allowed in the gluons, to generate the quark properties $u / d=1 ; b=1 ; s=1 ; c=1$ or $t=1$. These floats look like:
(U / D) S-beat:
$\mathrm{E}_{\mathrm{U} / \mathrm{D}}=3 / 29 / 2 \cdot \mathrm{f}_{\text {Compton }}$ is $\mathrm{u} / \mathrm{d}=1$
$\begin{aligned} & \mathrm{E}_{\mathrm{S}}=3 / 2 \\ & \left(3 / 2 \mathrm{f}_{\text {Compton }}(\mathrm{s}=1) \text { excitation of one gluon is missing }\right) \\ & \mathrm{E}=1 \mathrm{f}_{\text {Compton }}\end{aligned}$
Both the Energy $E_{U / D}=3 / 29 / 2 \cdot f_{\text {Compton }}$ as well as $E_{U / D}=9 / 2 \cdot f_{\text {Compton }}$ are the typical quark Eigen states for a single gluon $u / d=1$ - except for the Tauon and the W and $Z$-Boson. Only for $\mathrm{E}_{U / D}=3 / 29 / 2 \cdot f_{\text {compton }}$ is possible to obtain higher excited Eigen states for the $u / d=1$ through typical addition-operations. Only this Eigen state have the quantum number $u / d=1$ and possibility that a beat of this state exist -it has the name (U/D) S-beat. The energy of this beat is $E_{U / D}=9 / 2 \cdot{ }^{\circ}$ compton and because it has still quantum number $u / d=1$ it is a gluon, although $s=1$ excitation is missing for $3 / 2$ fompton. Therefore also $E_{U / D}=9 / 2 \cdot f_{\text {Compton }}$ may be added together to obtain higher excited states with quark $u / d=1$ as for $E_{U / D}=3 / 29 / 2 \cdot f_{\text {Compton }}$ to be $n / 2$ masses of the electron added. The mass formulas are written in Table 1 and 2 only as $9 / 2+1 ; 9 / 2+7 / 2 \ldots$ etc. although it is actually $(3 / 29 / 2+1)^{2 / 3}$ or $(3 / 29 / 2+7 / 2)^{2} / 3 \ldots$ etc.. But they are marked as (U / D) S-beats.

## CS-beat:



After conjecture 18th) is a particle with state $C=1$, if on one of his gluons has the resonance energy $E_{C S}$ (CSbeat)!

## BS-beat:



After conjecture 18th) is also a quark state $B=1$, if on one of his gluons is only the resonance energy $E_{B S}$ (BSbeat)!

## BC beat:



After accepting 18th) also has a quark state $B=1$, if on one of his gluons is only the resonance energy $E_{B C}(B C-$ beat)!

We assume that through collisions of the electron with other particles, the electron capture external gluons. The captured gluons will circulate in the full gluon of the electron. Now 1 Quantum condition of assumption 15 applies to this resonance gluons unknown frequency. Through constructive interference whole-number multiples of the Compton frequencies of the gluon are dominant in the gluon. If the above quantization rules are also applied to the newly created resonance gluon in full gluon, the quantum condition applies also a second time in 2 Order. 1 and 2 Order obtains the following frequencies:
$\left.\begin{array}{rl}\mathrm{f}_{\text {Resonance }}= & 1 \mathrm{f}_{\text {Compton }} \\ 2 & \mathrm{f}_{\text {Compton }} \\ & 3 \mathrm{f}_{\text {Compton }}\end{array}\right\} \quad$ 1.Order
$\left.\begin{array}{rl}\mathrm{f}_{\text {Resonance }}= & 2 \cdot 2 \mathrm{f}_{\text {Compton }} \\ 2 \cdot 3 \mathrm{f}_{\text {Compton }} \\ 3 \cdot 3 \mathrm{f}_{\text {Compton }}\end{array}\right\} \quad$ 2.Order
The rotational speeds of the photon resonance are added non-relativistic because of assumption 16 (see Figure 19). This leads to a reduction of the circumference of factor which mentioned in assumption 16 (2. Quantum condition).
 Assumbtion 1.

Through combination of the first and second Quantum condition in the gluon and we obtain the following resonance frequencies of the resonance gluon in the 4 gluons of an electron:

$$
\begin{aligned}
& \mathrm{f}_{\text {Resonance }}= 1 / 2 \mathrm{f}_{\text {compton }} \\
& 3 / 2 \mathrm{f}_{\text {Compton }} \\
&\left.\begin{array}{l}
5 / 2 \mathrm{f}_{\text {compton }} \\
7 / 2 \mathrm{f}_{\text {compton }} \\
\\
9 / 2 \mathrm{f}_{\text {compton }}
\end{array}\right\} \quad \text { 0. Order }
\end{aligned}
$$

| $\left.\begin{array}{rl} \mathrm{f}_{\text {Resonance }}= & 31 / 2 \mathrm{f}_{\text {Compton }} \\ & 3{ }^{3} / 2 \mathrm{f}_{\text {Compton }} \\ & 35 / 2 \mathrm{f}_{\text {Compton }} \\ & 3^{7} / 2 \mathrm{f}_{\text {compton }} \end{array}\right\}$ | 1. Order | $\left\{\begin{array}{l}2 \frac{3}{2} f f_{\text {Compton }} \\ 2 \frac{5}{2} f_{\text {compton }} \\ 2{ }^{7} / 2 f_{\text {compton }} \ldots\end{array}\right.$ |
| :---: | :---: | :---: |
| $\left.\begin{array}{rl} \mathrm{f}_{\text {Resonance } 0}= & 3 \cdot 3 \frac{1}{1} 2 \mathrm{f}_{\text {Compton }} \\ & 3 \cdot 3 \frac{3 / 2}{} \mathrm{f}_{\text {Compton }} \\ & 3 \cdot 3^{5 / 2} \mathrm{f}_{\text {Compton }} \\ & 3 \cdot 3^{7} / \mathrm{f}_{\text {Compton }} \end{array}\right\}$ | 2. Order | $\left\{\begin{array}{l}2 \cdot 23 / 2 \mathrm{f}_{\text {Compton }} \\ 2 \cdot 3 \mathrm{f}_{\text {compton }} \\ 2 \cdot 25 / 2 \mathrm{f}_{\text {compton }} \\ 2 \cdot 35 / 2 \mathrm{f}_{\text {compton }} \ldots .\end{array}\right.$ |

The two frequencies $3 / 2 f_{\text {compton }}$ and $9 / 2 f_{\text {compton }}$ ( 1 st order) are grayed out because they are distinguished from all other frequencies. They are the first resonant frequencies which differ from one ( 0 -order) and also fulfill the first and second Quantum condition fully (odd-numbered multiples). The first resonance gluon in a gluon, which differs from 1 of the Compton frequency have the frequency $f_{\text {resonance }}=3 \cdot 3 / 2 f_{\text {compton. }}$. It circulates not in one period of time in the gluon, but it needs three time periods for a full circulation with a velocity of circulation of $\mathrm{c} \cdot \frac{1}{2} \mathrm{or} 3 / 2 \cdot \mathrm{c}$. In the first case it is not a gluon flow, but a dormant gluon that rests in space as well as the gluons in the electron. In the second case it is able to form a gluon flow which is able to leave his place of origin. The frequency fresonance $=$ $3 \cdot 3 / 2 f_{\text {compton }}$ seems to be distinguished from all other resonance frequencies of the gluon. It is possible that through this frequency energy could be transmitted out or into a gluon. Let us summarize:

The formation of resonance frequencies appears most probably to be of the form $F_{\text {resonance }}=3 / 2 f_{\text {compton }}$ and , above all $F_{\text {resonance }}=9 / 2 f_{\text {compton }}$.

We assume that formation of such resonant photons could be possible in all four gluon space circles. So the electron have four similar resonances, because they resonates not with each other they could only overlap. Only a resonance that vibrates with all 4 resonance frequencies in the electron would be a resonance frequency of the entire electron. Resonance frequencies of the total electron have to be quadruples of the already found resonances of the gluon. The electron resonance frequencies of the total electron should have the following form:
$f_{\text {resonance electron-sum }}=\left(f_{\text {gluon-resonance }}\right)^{4} \cdot f_{\text {compton }} \quad$ with $f_{\text {gluon-resonance }}=\frac{3}{2} ; 5 / 2 ;$..etc $($ see above $)$
The terms $\left(\frac{3}{9} / 2\right)^{4}$ and $(9 / 2)^{4}$ should be in front of all other terms to be distinguished, because the resonances $3 / 2$ $f_{\text {compton }}$ and $9 / 2 f_{\text {compton }}$ of the gluon should be commonest. In comparison with the mesons and hadrons - the particle mass is given as result of following relationship between the overall response of the electron and the quark content ( $s=1, c=1, b=1, \ldots$ ):

| $(9 / 2)^{4}$ |
| :--- | :--- | :--- |

Figure 20: The quark colors $u / d=1, s=1, c=1, b=1$ and $t=1$

Occurs in the mass formula of a particle e.g. the term $(9 / 2)^{4}$ so has the quark content of the corresponding particle $s=1$. If the term $(3 / 2)^{4} \cdot\left(3^{3} / 2\right)^{4}$ in the mass formula (resonance squared) has the particles $s=2$, etc $\ldots$. It behaves the same by other quark content.

It is obviously that the quark content ( $s, b, c$ ) representing ground states of the associated total resonance of the affected electron. In addition to this ground state, there exist a number of other similar higher resonant states with quark content ( $\mathrm{s}, \mathrm{c}, \mathrm{b}$ ). There exist also additions of the form:
$\left(\mathrm{f}_{\text {Gluon-Resonanz }}\right)^{4}+\mathrm{n} / 2 \quad$ with $\mathrm{n}=1 ; 2 ; 3 \ldots$. and $\mathrm{f}_{\text {Gluon-Resonanz }}=\frac{3}{2} ; 5 / 2 ; \ldots$ (higher excited quark states)
They should have the quark content ( $s, c, b$ ). This applies for the $u / d$ quark too. In the table of mass formulas for various particles (see Table 1 and 2), I marked with color the formulas of the excited quarks. Additions of the terms always refer to the product of these terms. According to the book there is always added the term $\mathrm{n} / 2$ (halfmultiples of the electron masse) to the quark excitation and with high accuracy we obtained countless other particles of the same quark content. The adding up of $n / 2$ multiple of the electron energy corresponds in our model to the energy of a gluon resonance, the addition of two resonances in a gluon. In addition the term +1 occurs frequently and corresponds to the addition of a trivial 1 's flow of 0 . Order in the gluon. This is the energy of the resonance plus of original gluon itself ... etc.

In order to explain completely the associations found between particle masses and the mass formula, we need the following natural assumption:
19.) In mesons and hadrons - but not in leptons (because of 9th assumption it is logical that only leptons exist in an gluon. In mesons and hadrons could exist two such yellow gluons, which raise perpendicular upright each other after condition 9 ) - can still make a fifth gluon-field-circle, whose field is perpendicular to all other four gluon fields. Then the total resonance of the associated electron is in this case: $\mathrm{f}_{\text {Elektron-Gesamt }}=\left(\mathrm{f}_{\text {Gluon-Resonanz }}{ }^{5}\right.$ and the exponent is not four. - A maximum of six gluon-field-circle can be in $\mathrm{R}^{4}$, which are perpendicular to each other upright. Only five of these gluons occur at a time.

## Comment:

From assumption 17 and the condition of quark excitations (the higher the resonance, the more the quark content shifts of $u / d$ over $s=1$ to $c=1$ and $b=1$ ) it follows that not only the overall resonance of the electron with quark content ( $\mathrm{s}, \mathrm{c}, \mathrm{b}$ ) has a quark with color, but also energetically the neighboring resonances. Especially the energy at the lower end of the scale of the resonances in quark of color $s=1$ have energetically many similar gluon resonances, because these are all on similar low-energy levels. For Example the gluon resonance $25 / 2$, which probably still has $\mathrm{u} / \mathrm{d}=1$, is energetically difficult to distinguish from $\mathrm{S}=1$ with $5.06=(3 / 2) 4$. The mass formulas in Table 1 and 2 would not change if the resonance differs from 5.06 to 5.0 . The following energy values could be associated with specific quark content. Occasional energetic similarity between different quark content made it difficult to analysis:

Energy level


Fig.21: Further gluon resonance of $u / d=1$
In Fig. 21 is striking that the most common 1 st order resonance $9 / 2$ of $u / d$ quark may added multiple times to gluon, which results in particles with more mass. This means for example:
a.) that, the fourth potency of $1 \cdot 9 / 2$ is the Myon resonance,
b.) 4 Potency of $2 \cdot 9 / 2$ is the Taoun resonance
c.) and $4 \cdot 9 / 2$ in 4th Power is the resonance of the W/Z-Boson

So tauon have in this view of gluon-level 2 myons and $W / Z$ boson have two tauons. Each doubling of the energy value in a gluon by the addition of two resonances leads in the 4th potency to a multiple of the base energy. The Z-boson differs from the W boson by a transition $9 / 2 \rightarrow(3 / 2)^{4}=5,06$ or $9 / 2 \rightarrow 10 / 2$, which is a common transition for $u / d=1$. It could be that all the gluons captured inside the electron with a resonance which are not 1 and have order of zero, with the resonance of $3 / 2$. This resonance is typical for $s=1$, but the particles have not
strange $s=1$. This is a problem exist in many other $s=1$ particles too. The transition of $u / d=1 . s=1$ oscillate around the transition of $9 / 2 \rightarrow(3 / 2)^{4}$. Apparently of the four inside the electron captured gluons three are detectable through their quark color. According to our model, a particle could contain up to four different quark colors, not just three. Therefore if the quark property is $s=1$ this invisible fourth quark would have effect on the mass of the particle.

Energy level

$$
\begin{aligned}
13,0 & =2^{13 / 2} \\
11,0 & =2^{11 / 2} \\
9,0 & =2^{9 / 2} \\
7,0 & =2^{7} / 2 \\
5,0 & =2^{5 / 2}
\end{aligned} \quad 5,25=3 / 2{ }^{7} / 2
$$

Fig.22: More gluon resonance, who have $s=1$


Fig.23: gluon resonance who also $c=1$.


Fig.24: gluon resonance who have also $b=1$.

## Comment:

If resonance is taking place in the electron of the form $f_{\text {electron-sum, }}$, a gluon/Antigluon pair should be available to create a lepton, a meson or a hadron particle-antiparticle pair (we will see later, that the resonance provides antigluon as the antiparticle of the gluon!). Electrons in our model correspond to the parallelism of particles and antiparticles with an unstable gluon of fourth polarization. This splits itself completely in the $R^{4}$ in 4 gluon/ antigluon pairs. The four antigluons form together an antiparticle "below" and the four gluons "above" the plane E of the 3-dimensional reference space.

The electron resonance should be able to provide always the energy for a particle / antiparticle pair. The actual mass of particles is then obtained through multiply resonance of half times with the factor for the particle type $(2 / 3=$ gluon/antigluon pair, $3 / 3=$ lepton, $4 / 3=$ light meson, $6 / 3=$ heavy meson and hadron and $9 / 3=$ boson. The located resonances are always with the electron mass or the Compton frequency of the electron (The electron mass is the basis of all particle masses $\rightarrow$ this quark model is an electron-exchange-theory too).

## Open questions:

- It could not be clarified why certain resonances take only place in mesons, baryons or other particles. Actually, this model suggests that there should be many more particles than there are actually known. In fact, however, it seems certain resonances are emerge only by certain kinds of particles. This could not be explained.
- Occasionally particles lack the basic states of the quark excitation. A clarification of this phenomenon could not be found. Not for all excited states could be given an exact formula of a quark mass. The revealed model of resonance is far from fully understood.
- $\quad s=1$ and $u / d=1$ are energetically difficult to distinguish from each other, because $5.0=25 / 2$ is evidently $\mathrm{u} / \mathrm{d}=1$ and $5.06=\left(3^{3} / 2\right)^{4}$ is $\mathrm{s}=1$.
- In this model, each particle could have up to four different quark colors. Experimental evidence exist only for three quark colors. This discrepancy can only be explained by the fact that the yellow gluon circle (also one of fours) in the electron is not flat in the 3-dimensional reference space, which prevents a direct measurement of the quark content.
- Occasionally there are discrepancies between measured and calculated particle mass up to about $1 \%$. The difference could not be explained.
- In our quark model, we have placed the excited electrons state beside excited stats of the positrons. This is problematic because both particles are known to destroy each other. This is obviously not the case. We attribute the fact that the particles are "abnormal" arranged to each other in the threedimensional reference space.


## 7. Predictions:

## 1. Vibration in the 4th potency:

Our Quark model the $t$-quark have a $\frac{6}{2}$ vibration in the 4th potency, with the frequency:
$\mathrm{f}_{\text {Resonance }}=81 \cdot \mathrm{f}_{\text {Compton }}$
a. The TS-beat (also $t=1$ flavor which is preferred for hadrons with $t=1$ (see Table 2)), this value is only: $\mathrm{f}_{\text {Resonance }}=81 \cdot \mathrm{f}_{\text {compton }} \cdot(3 / 2)^{-1}$
b. The TC-beat (also $t=1$ flavor which is preferable to base $p^{*}$ ) have only the value of:
$\mathrm{f}_{\text {Resonance }}=81 \cdot \mathrm{f}_{\text {compton }} \cdot\left({ }^{4} / 2\right)^{-1}$
c. The TB-Beat (also $t=1$ flavor which is preferred for tt-mesons) have the value of:
$\mathrm{f}_{\text {Resonance }}=81 \cdot \mathrm{f}_{\text {Compton }} \cdot(5 / 2)^{-1}$
To take these frequencies value the $u / d$-resonance in a gluon of von $9 / 2 f_{\text {compton (base }} \mathrm{p}$ ) or $3 / 2 \cdot{ }^{9} / 2 \mathrm{f}$ compton (in base p * ( ${ }^{*}=$ unknown particles - see Table $1-$ ) is transformed to the $81 \cdot f_{\text {compton }}$ frequency. T-Hadrons and tt -Mesons should have following frequencies and energies:

| particle | base | frequency | energy | beat |
| :---: | :---: | :---: | :---: | :---: |
| t -hadron | P (proton) | $22140.0 \mathrm{f}_{\text {compton }}$ | 11313.0 MeV | TS |
| t -hadron | $\mathrm{P}^{\star}($ unknown $)$ | $18657.0 \mathrm{f}_{\text {compton }}$ | 9534.0 MeV | TC |
| tt -meson | $\mathrm{P}^{\star}($ unknown $)$ | $47762.0 \mathrm{f}_{\text {compton }}$ | 24406.0 MeV | TB |

2. Existence of the Higgs boson:

This model predicts no Higgs boson with energy of 120 GeV .
3. Prediction for particle stability:

The $(9 / 2)^{4} \cdot f_{\text {compton }}=410$ (Myon frequency) in this model is equivalent to a gluon resonance that switches between four different gluon colors and is transformed (9/2)4 times of the electron Compton frequency (probable resonance of the 1 st order). $1^{4}=1$ is the trivial 4 -color gluon flow, for example the electron with zero order. The $(9 / 2)^{5} \cdot \mathrm{f}_{\text {compton }}=1845$ (proton frequency) of a gluon resonance switches also between five different gluon colors and is transformed to the $(9 / 2)^{5}$ times the Compton frequency of the electron.

In our electron model we could bring in conjunction the 4-color gluon flow with a photon polarization 4 in (goes out of it). The 4 different gluon colors correspond to four different dimensions of space of a min. 4 dimensional space. A five-color gluon flow must therefore by $90^{\circ}$ rotated to end in a 4-colored gluon flow when they have the same origin. Four-color flow, revealing apparently almost all elementary particles other than the proton, can thus lead at all times back in the electron - from which they emerge and shine (. unstable particles?). Only the proton (ground state of this resonance) and a number of different baryons with different quark colors (excited states) appear before a relapse into a stream of electrons through a rotation of $90^{\circ}$ to be protected in one spatial dimension.

## 8. Calculating particle masses of gluon resonance:

Table 1: The details make the connections between particle mass and quark content as follows:


Table 2: Further Particle-masses:

| Particles: | Gluon colo | Equ | ion: |  |  | G/G-Paar $(2 / 3) ;$ Lepton (3/3); I. Meson (4/3); h. Meson(6/3); Hadron (6/3); | $\begin{aligned} & \text { Result } \\ & \text { for one } \\ & \text { particle } \end{aligned}$ | Energy in MeV: (compare Internet) | Sort of particle: | Quark: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | green | Blue | Red | yello | purpl |  |  |  |  |  |
| 2p/n | $9 / 2$ | 9/2 | 9/2 | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 1845 | $1836 \cdot 0,5109$ | Hadron | u/d-beat |
| / | $y / 2+1$ | $9 / 2$ | ${ }^{1} / 2$ | $9 / 2$ | ${ }^{9} / 2$ | $(6 / 3)$ | 2118 | / | " | $3 / 2 \cdot 9 / 2+1$ |
| 2N(1440) | $9 / 2+1 / 2$ | 9/2 | ${ }^{4} / 2$ | ${ }^{9} / 2$ | ${ }^{9} / 2$ | (6/3) | 2802 | $2818 \cdot 0,5109$ | " | $3 / 2 \cdot 9 / 2+1 / 2$ |
| 2N(1520) | $9 / 2+8 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | 9/2 | $(6 / 3)$ | 2940 | 2974 •0,5109 | " | $3 / 2 \cdot 9 / 2+8 / 2$ |
| 2N(1650) | $9 / 2+10 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | 9/2 | $(6 / 3)$ | 3212 | 3229 •0,5109 | " | $3 / 2 \cdot 9 / 2+{ }^{10} / 2$ |
| 2N(1680) | $10 / 2+9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 3281 | 3287 •0,5109 | " | $3 / 2 \cdot 10 / 2+9 / 2$ |
| 2N(1710) | $9 / 2+9 / 2+1$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 3348 | 3356 •0,5109 | " | $3 / 2 \cdot 9 / 2+9 / 2+1$ |
| 2N(1900) | $3.9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 3691 | $3720 \cdot 0,5109$ | " | No beat! |
| 2N(1990) | $\left(9 / 2+{ }^{10} / 2\right)$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 3896 | 3895 •0,5109 | " | $3 / 2\left(9 / 2+{ }^{10} / 2\right)$ |
| 2N(2100) | $3.10 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 4100 | $4110 \cdot 0,5109$ | " | No beat! |
| 2N(2250) | $3 \cdot 10 / 2+1$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | 9/2 | $(6 / 3)$ | 4374 | 4403 •0,5109 | " | " |
| 2N(2600) | $3 \cdot 10 / 2+7 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 5058 | 5088 •0,5109 | " | ", |
| 2N(2700) | $3 \cdot 10 / 2+9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | 9/2 | $(6 / 3)$ | 5331 | 5284 •0,5109 | " | " |
| 2N(3500) | $5.10 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 6835 | $6850 \cdot 0,5109$ | " | " |
| 1 | $5 \cdot{ }^{10} / 2+1$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | 9/2 | (6/3) |  | 1 |  |  |
| 2N(3800) | $6.9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 7518 | 7437 •0,5109 | " | " |
| 1 | $5 \cdot{ }^{10} / 2+{ }^{7} / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 7790 | 1 | " |  |
| 2N(4100) | $5 \cdot 10 / 2+9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 8064 | 8024 • 0,5109 | Hadron | " |
| 2P*? | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ |  | $(6 / 3)$ | 2073 | 1 | Hadron | In detail: |
| 2వ(1232) | $9 / 2+1$ | 2 | 2 | 2 |  | " | 2384 | $2410 \cdot 0,5109$ | " | $3 / 2 \cdot 9 / 2+1$ |
| $2 \Delta(1600)$ | $9 / 2+7 / 2$ | " | " | " |  | " | 3152 | $3132 \cdot 0,5109$ | " | $3 / 2 \cdot 9 / 2+7 / 2$ |
| $2 \Delta(1620)$ | $9 / 2+7 / 2$ | " | " | " |  | " | 3152 | $3170 \cdot 0,5109$ | " | $3 / 2 \cdot 9 / 2+7 / 2$ |
| $2 \Delta(1700)$ | $9 / 2+8 / 2$ | " | " | " |  | " | 3306 | 3327 •0,5109 | " | $3 / 2 \cdot 9 / 2+8 / 2$ |
| $2 \Delta(1750)$ | ${ }^{y} / 2+y / 2$ | " | " | " |  | " | 3460 | 3425 •0,5109 | " | $3 / 2 \cdot 9 / 2+9 / 2$ |
| $2 \Delta(1900)$ | $9 / 2+9 / 2+1$ | " | " | " |  | " | 3762 | $3720 \cdot 0,5109$ | " | $3 / 2 \cdot 9 / 2+9 / 2+1$ |
| $2 \Delta(1930)$ | $9 / 2+y / 2+1$ | " | " | " |  | " | 3762 | 3777 •0,5109 | " | $3 / 2 \cdot 9 / 2+4 / 2+1$ |
| $2 \Delta(1950)$ | $10 / 2+10 / 2$ | " | " | " |  | " | 3844 | 3816 •0,5109 | " | $3 / 2 \cdot 10 / 2+10 / 2$ |
| $2 \Delta(2000)$ | $9 / 2+10 / 2+1$ | " | " | " |  | " | 3921 | $3913 \cdot 0,5109$ | " | $3 / 2 \mathrm{y} / 2+{ }^{10} / 2+1$ |
| $2 \Delta(2150)$ | $3.9 / 2$ | " | " | " |  | " | 4152 | $4208 \cdot 0,5109$ | " | $3 \cdot \frac{9}{2}$ |
| $2 \Delta(2200)$ | $9 / 2+9 / 2+{ }^{10} / 2$ | " | " | " |  | " | 4306 | 4306 •0,5109 | " | look left side |
| $2 \Delta(2300)$ | $9 / 2+10 / 2+{ }^{10} / 2$ | " | " | " |  | " | 4460 | 4501 •0,5109 | " | " |
| $2 \Delta(2350)$ | $3 .{ }^{10} / 2$ | " | " | " |  | " | 4613 | 4600 •0,5109 | " | " |
| $2 \Delta(2390)$ | $3.10 / 2$ | " | " | " |  | " | 4669 | 4677 •0,5109 | Here: | $10 / 2:=5,06$ ? |
| $2 \Delta(2400)$ | $3.10 / 2$ | " | " | " |  | " | 4669 | 4697 •0,5109 | Here: | $10 / 2:=5,06$ ? |
| $2 \Delta(2420)$ | $3^{10} / 2+1 / 2$ | " | " | " |  | " | 4746 | 4736 •0,5109 | " | look left side |
| $2 \Delta(2750)$ | $3 \cdot 9 / 2+8 / 2$ | " | " | " |  | " | 5382 | 5382 •0,5109 | " | " |
| $2 \Delta(2850)$ | $4 \cdot \frac{9}{2}$ | " | " | " |  | " | 5536 | 5577 •0,5109 | " | " |
| $2 \Delta(2950)$ | $3 \cdot 9 / 2+{ }^{10} / 2$ | " | " | " |  | " | 5690 | 5773 •0,5109 | " | " |
| $2 \Delta(3200)$ | $\begin{aligned} & 3 \cdot \frac{9}{2}++^{3} / 2^{y} / 2 \\ & 410 / \end{aligned}$ | " | " | " |  | " | $\begin{aligned} & 6228 \\ & 6151 \end{aligned}$ | 6262 •0,5109 | " | " |
|  |  | " | " | " |  | " | 6151 |  |  |  |
| $2 \Delta(3300)$ | $4102+1$ | " | " | " |  | " | 6447 | $6460 \cdot 0,5109$ | " | " |
| $2 \Delta(3700)$ | $4^{10} / 2+7 / 2$ | " | " | " |  | " | 7255 | $7240 \cdot 0,5109$ | " | " |
| / | $5^{10} / 2$ | " | " | " |  | " | 7677 | / |  |  |
| $2 \Delta(4100)$ | $5^{10} / 2+1$ | " |  | " |  | " | 7996 | 8027 •0,5109 | " | " |



| $\Sigma$-Baryons: 2 p/n | ${ }^{9} / 2$ | ${ }^{9} / 2$ | ${ }^{9} / 2$ | 9/2 | ${ }^{9} / 2$ | $(6 / 3)$ | 1845 | $1836 \cdot 0,5109$ | Hadron | $\begin{gathered} S=1 \\ \text { Base } p \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2P*? | 9/2 | ${ }^{9} / 2$ | ${ }^{9} / 2$ | ${ }^{9} / 2$ |  | $(6 / 3)$ | 2073 | / | Hadron | Base $\mathbf{p}^{*}$ |
|  | $3 / 2$ | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  |  |  |
| $2 \Sigma^{+-}$ | $10 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ |  | $(6 / 3)$ | 2303 | 2327 •0,5109 | " |  |
| 1 | $3 / 2$ | $3 / 2$ | $3 / 2$ | $3 / 2$ |  | $(6 / 3)$ |  |  | " |  |
| $2 \Sigma(1385)$ | $10 / 2+3 / 2$ | " | " | " |  | $(6 / 3)$ | 2764 | $2710 \cdot 0,5109$ | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(1480)$ | $2^{7} / 2$ | " | " | " |  | $(6 / 3)$ | 2866 | 2896 •0,5109 | " | Base p |
| $2 \Sigma(1560)$ | $10 / 2+5 / 2$ | " | " | " |  | $(6 / 3)$ | 3071 | 3053 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(1580)$ | $2^{7} / 2+1$ | " | " | " |  | $(6 / 3)$ | 3140 | 3092 •0,5109 | " | Base P |
| $2 \Sigma(1660)$ | $2^{7} / 2$ | " | " | " |  | $(6 / 3)$ | 3225 | 3250 •0,5109 | " | Base p* |
| $2 \Sigma(1670)$ | $2{ }^{7} / 2+3 / 2$ | " | " | " |  | $(6 / 3)$ | 3276 | 3268 •0,5109 | " | Base P |
| $2 \Sigma(1775)$ | $2 / / 2+1$ | " | " | " |  | $(6 / 3)$ | 3532 | 3474 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(1840)$ | $27 / 2+5 / 2$ | " | " | " |  | $(6 / 3)$ | 3549 | 3600 •0,5109 | " | Base P |
| $2 \Sigma(1880)$ | $2{ }^{9} / 2$ | " | " | " |  | $(6 / 3)$ | 3685 | 3680 •0,5109 | " | Base P |
| $2 \Sigma(1915)$ | $2 / / 2+3 / 2$ | " | " | " |  | $(6 / 3)$ | 3686 | 3748 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(1940)$ | $27 / 2+4 / 2$ | " | " | " |  | $(6 / 3)$ | 3839 | 3796 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| 2 $\mathrm{S}^{(2000}$ ) | $2 \frac{9}{2}+1$ | " | " | " |  | $(6 / 3)$ | 3963 | 3914 •0,5109 | " | Base P |
| $2 \Sigma(2070)$ | $2{ }^{7} / 2+5 / 2$ | " | " | " |  | $(6 / 3)$ | 3993 | 4052 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(2100)$ | $2 \frac{9}{2}$ | " | " | " |  | $(6 / 3)$ | 4146 | $4110 \cdot 0,5109$ | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(2250)$ | $29 / 2+1$ | " | " | " |  | $(6 / 3)$ | 4453 | 4403 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(2455)$ | $3{ }^{7} / 2$ | " | " | " |  | $(6 / 3)$ | 4837 | 4804 •0,5109 | " | Base P |
| $2 \Sigma(2620)$ | $2^{11 / 2}$ | " | " | " |  | $(6 / 3)$ | 5067 | 5127 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| 1 | $2^{11 / 2}+1$ | " | " | " |  | $(6 / 3)$ |  |  | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(3000)$ | $2^{11} / 2+5 / 2$ | " | " | " |  | $(6 / 3)$ | 5835 | 5870 •0,5109 | " | Base $\mathrm{p}^{*}$ |
| $2 \Sigma(3170)$ | $3 \frac{9}{2}$ | " | " | " |  | $(6 / 3)$ | 6219 | $6203 \cdot 0,5109$ | " | Base p* |
| $\Xi$ - Baryons: |  |  |  |  |  |  |  |  |  | $S=2$ |
| 2P*? | $9 / 2$ $3 / 2$ |  | $y / 2$ | ${ }_{3}^{9} / 2$ |  | $(6 / 3)$ | 2073 | 1 | Hadron |  |
|  | $3 / 2$ | 3/2 | $3 / 2$ | $3 / 2$ |  |  |  |  |  |  |
| $2 \Xi^{0}$ | $10 / 2$ | $10 / 2$ | 2 | 2 |  | $(6 / 3)$ | 2559 | 2573 •0,5109 |  | Base $\mathrm{p}^{*}$ |
| 2E(1530) | $10 / 2-1 / 2$ | $2{ }^{7} / 2$ | " | " |  | $(6 / 3)$ | 2976 | 2994 •0,5109 | $10 / 23 / 2^{-1 / 2}$ | Base P |
| $2 \Xi(1620)$ | $2{ }^{7} / 2$ | 10/2 | " | " |  | $(6 / 3)$ | 3177 | 3170 •0,5109 |  | Base P |
| 2E(1690) | $10 / 2-1 / 2$ | $2^{7} / 2$ | " | " |  | $(6 / 3)$ | 3348 | 3307 •0,5109 | $10 / 23 / 2^{-1 / 2}$ | Base $\mathrm{p}^{*}$ |
| $2 \Xi(1820)$ | $2^{7} / 2$ | $10 / 2$ | " | " |  | $(6 / 3)$ | 3574 | 3562 •0,5109 |  | Base $\mathrm{p}^{*}$ |
| 2E(1950) | $10 / 2-1 / 2$ | $2^{7} / 2$ | " | " |  | $(6 / 3)$ | 3767 | 3816 •0,5109 | $10 / 23 / 2^{-1 / 2}$ | Base $\mathrm{p}^{*}$ |
| 2 $\Xi(2030)$ | $2^{7} / 2+1$ | 10/2 | " | " |  | $(6 / 3)$ | 3929 | 3973 •0,5109 |  | Base $\mathrm{p}^{*}$ |
| 2玉(2120) | $2{ }^{9} / 2$ | $10 / 2$ | " | " |  | $(6 / 3)$ | 4100 | 4149 •0,5109 |  | Base P |
| 2 $\Xi(2250)$ | 2/2 | $2^{\prime} / 2$ | " | " |  | $(6 / 3)$ | 4464 | 4403 •0,5109 |  | Base P |
| 2 $\Xi(2370)$ | $2{ }^{9} / 2$ | 10/2 | " | " |  | $(6 / 3)$ | 4607 | 4638 •0,5109 |  | Base $\mathrm{p}^{*}$ |
| 2 $\Xi(2500)$ | $2 / 2$ | $2^{\prime} / 2$ | " | " |  | $(6 / 3)$ | 4980 | 4892 •0,5109 |  | Base $\mathbf{p}^{*}$ |
| $\Omega$-Baryons: |  |  |  |  |  |  |  |  | here: |  |
| $\Omega^{-}$ |  | $10 / 2$ | $10 / 2$ | $10 / 2$ |  | $(6 / 3)$ | 3325 | $3273 \cdot 0,5109$ | $10 / 2:=(3 / 2)^{4}$ | Base p* |
| $\Omega(2250)$ | $2{ }^{7} / 2-1 / 2$ | $10 / 2$ | $10 / 2$ | $10 / 2$ |  | $(6 / 3)$ | 4379 | 4403 •0,5109 | $10 / 2:=(3 / 2)^{4}$ | Base $\mathrm{p}^{*}$ |
| $\Omega(2380)$ |  | $10 / 2$ | $10 / 2$ | $10 / 2$ |  | $(6 / 3)$ | 4598 | 4658 •0,5109 | $10 / 2:=(3 / 2)^{4}$ | Base p* |
| $\Omega(2470)$ | $2^{7} / 2+1 / 2$ | $10 / 2$ | $10 / 2$ | $10 / 2$ |  | $(6 / 3)$ | 4817 | 4834 •0,5109 | $10 / 2:=(3 / 2)^{4}$ | Base ${ }^{*}$ |
| D-Mesonen: <br> / |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \\ & 9 / 2+1 / 2 \\ & 5 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 3455 |  | h. Meson | $c=1$ <br> CS-beat |
| $2 \mathrm{D}^{+-}$ |  | 9/2 | $9 / 2$ | $9 / 2$ |  | $(6 / 3)$ | 3658 | 3658 •0,5109 | h. Meson | $c=1$ |
|  |  | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  | $3 / 25 / 29 / 2+1 / 2$ | CS- beat |
| 2D ${ }^{*}$ (2010) | $9 / 2+5 / 2$ | $9 / 2$ | $9 / 2$ | $9 / 2$ |  | $(6 / 3)$ | 3965 | 3934 •0,5109 | h. Meson | $c=1$ |
|  | $5 / 2$ | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  | $3 / 2^{5} / 29 / 2+4 / 2$ | CS- beat |
| 2D ${ }_{1}(2420)$ | $9 / 2^{-1} / 2$ | $9 / 2$ | ${ }^{9} / 2$ | ${ }^{9} / 2$ |  | $(6 / 3)$ | 4733 | 4735 •0,5109 | h. Meson | $c=1$ |
|  | $1 / 2$ | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  | $3 / 2^{1} / 2^{9} / 2^{-1 / 2}$ | CS- beat |
| $2 \mathrm{D}_{2}{ }^{*}(2460)$ | $y / 2$ | $9 / 2$ | ${ }^{4} / 2$ | $y / 2$ |  | $(6 / 3)$ | 4837 | 4814 •0,5109 | h. Meson | $c=1$ |
|  | 1/2 | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  | h. Meson | CS- beat |
| 2D*(2640) | 9/2 | $9 / 2$ | $9 / 2$ | $9 / 2$ |  | $(6 / 3)$ | 5183 | 5166 •0,5109 |  | $\mathrm{c}=1$ |
|  | $5 / 23 / 2$ | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  |  | No beat! |


| $\begin{aligned} & \text { Cs-Mesons: } \\ & 2 \mathrm{D}_{\mathrm{s}}^{+} \end{aligned}$ |  | ${ }^{9} / 2$ | 10/2 | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $(6 / 3)$ | 3839 | 3853 •0,5109 | h. Meson | $C=1, s=1$ $C s-b e a t$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5/2 ${ }^{\text {a }}$ | $3 / 2$ | 3/2 | $\begin{aligned} & 3 / 2 \\ & 9 / 2 \end{aligned}$ |  |  |  |  | CS- beat CS-beat |
| $2 \mathrm{D}_{\mathrm{s}}{ }^{+}(2112)$ | 9/2 2 + ${ }^{3} / 2$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & 10 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $(6 / 3)$ | 4180 | 4133 •0,5109 | h. Meson | CS- beat |
| $2 \mathrm{D}_{\text {sj }}{ }^{\text {J }}$ (2317) ${ }^{+}$ | $9 / 2+3$ | 9/2 | $10 / 2$ | $9 / 2$ | $(6 / 3)$ | 4521 | 4534 •0,5109 | h. Meson | CS- beat |
|  | 5/2 ${ }_{9}$ | $3 / 2$ | $3 / 2$ 10 | $3 / 2$ 9 |  |  |  |  |  |
| $\mathbf{2 D}_{\text {SJ }}(\mathbf{2 4 6 0})^{+-}$ | 9/2 $+1 / 2$ | 9/2 | $10 / 2$ | $9 / 2$ $3 / 2$ | (\%/3) | 4861 | 4814 • 0,5109 | h. Meson | CS- beat |
| $2 \mathrm{D}_{\text {s } 1}(2536)^{+-}$ | $9 / 2+3 / 2$ | 9/2 | $10 / 2$ | 9/2 | $(6 / 3)$ | 4948 | 4963 •0,5109 | h. Meson | CS- beat |
|  | 6/2 | $3 / 2$ | 3/2 | $3 / 2$ |  |  |  |  |  |
| $2 \mathrm{D}_{\text {sJ }}(2573)^{+-}$ | $\begin{aligned} & 9 / 2+4 / 2 \\ & 6 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 10 / 2 \\ & 10 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $(6 / 3)$ | 5062 | 5035 •0,5109 | h. Meson | CS- beat |
| C-Baryons: |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $1 / 2$ $3 / 2$ 1 | 9/2 | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | ( $/ 3$ ) |  |  |  |  |
| 1 | 9 | 9/2 | 9/2 | $9 / 2$ | $(6 / 3)$ |  |  |  |  |
|  | 6/2 | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  |  |
| $2 \Lambda_{c}(2285){ }^{+}$ | $9 / 2+3 / 2$ | 9/2 | 9/2 | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 4453 | $4472 \cdot 0,5109$ | Hadron | CS- beat |
| $2 \sum_{\mathrm{c}}(2455)$ | \%/2 9 + 3 | $3 / 2$ $9 / 2$ | $3 / 2$ $9 / 2$ | $3 / 2$ $9 / 2$ | $(\% / 3)$ | 4760 | 4804 •0,5109 | Hadron | CS- beat |
| $2 \sum_{c}(2455)$ | $6 / 2+3$ | $3 / 2$ | 3/2 | $3 / 2$ | (3) |  | 4804 • 0,5109 |  |  |
| $2 \mathrm{C}^{0}{ }^{0}(2471)$ | 9/2 | 9/2 | 9/2 | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 4837 | 4836 •0,5109 | Hadron | CS- beat |
| $2 \mathrm{c}^{+}{ }^{+}(2574)$ | $9 / 2+1$ | $1 / 2$ $9 / 2$ $3 / 2$ | $1 / 2$ $3 / 2$ | $1 / 2$ $9 / 2$ $3 / 2$ | $(6 / 3)$ | 5042 | 5037 •0,5109 | Hadron | CS- beat |
| $2 \mathrm{c}^{\circ} \mathrm{C}$ (2578) |  | " | " | " | $(6 / 3)$ | 5042 | 5045 •0,5109 | Hadron | CS- beat |
| $2 \wedge_{c}(2593){ }^{+}$ |  | " | " | " | $(6 / 3)$ | 5042 | 5074 •0,5109 | Hadron | CS- beat |
| $2 \wedge_{c}(2625){ }^{+}$ | $9 / 2+3 / 2$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ | $9 / 2$ 3 | $(6 / 3)$ | 5144 | $5137 \cdot 0,5109$ | Hadron | CS- beat |
| $2 \Xi_{\mathrm{c}}(2790)$ | $9 / 2+3$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 5451 | 5469 •0,5109 | Hadron | CS- beat |
| $2 \sum_{c}(2520)$ | 9/2 7 + $1 / 2$ | 9/2 | $9 / 2$ $3 / 2$ | $9 / 2$ $9 / 2$ | $(6 / 3)$ | 4939 | 4932 • 0,5109 | Hadron | CS- beat |
| $2 \mathrm{E}_{\mathrm{c}}(2645)$ | $1 / 2$ $9 / 2$ 5 | $1 / 2$ $9 / 2$ 3 | $3 / 2$ $9 / 2$ $3 / 2$ | $3 / 2$ $9 / 2$ 3 | $(6 / 3)$ | 5182 | 5176 •0,5109 | Hadron | No beat! |
| $2 \Omega_{\mathrm{c}}{ }^{+}(2697)$ | $5 / 23 / 2$ $9 / 2+{ }^{11} / 2$ | $3 / 2$ $y / 2$ 3 | $3 / 2$ $9 / 2$ $3 / 2$ | $3 / 2$ $9 / 2$ 3 | $(6 / 3)$ $(6 / 3)$ | 5272 | 5278 •0,5109 | Hadron | CS- beat |
| 2 Ec (2815) | $6 / 2$ $9 / 2$ | $3 / 2$ $9 / 2$ | $3 / 2$ $9 / 2$ | $3 / 2$ $9 / 2$ | $(6 / 3)$ | 5528 | 5509 • 0,5109 | Hadron | CS- beat |
|  | $8 / 2$ | $3 / 2$ | $3 / 2$ | $3 / 2$ |  |  |  |  |  |
| 2X(2880) | $\begin{aligned} & 9 / 2+1 / 2 \\ & 8 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & y / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & y / 2 \\ & 3 / 2 \end{aligned}$ | $(6 / 3)$ | 5630 | 5636 •0,5109 | Hadron | CS- beat |
| $\begin{gathered} \text { Cc-Baryons: } \\ 1 \\ 2 \Xi_{\mathrm{cc}} \end{gathered}$ | $\begin{aligned} & 9 / 2 \\ & 6 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $(6 / 3)$ | 6910 | 6887 •0,5109 | Hadron | CS- beat |
| CC-Mesons: $2 \eta_{c}(2980)$ |  |  |  |  |  |  |  |  |  |
| $2 \eta_{\mathrm{c}}(2980)$ | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $1 / 2$ $3 / 2$ | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 5754 | 5832 •0,5109 | s. Meson | Cs- beat |
| $2 \psi(3097)$ | $9 / 2+1$ $5 / 2$ | $3 / 2$ $3 / 2$ | $9 / 2$ $5 / 2$ | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 6094 | 6060 •0,5109 | s. Meson | CS- beat |
| $2 \eta_{c}(3590)$ | $\frac{9}{6 / 2}+1 / 2$ | 9/2 | $\begin{aligned} & y_{1}^{2} / 2 \\ & 0 \end{aligned}$ | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 7080 | $7026 \cdot 0,5109$ | s. Meson | CS- beat |
| 2X(3415) | l/2 9 | $1 / 2$ $9 / 2$ $3 / 2$ | $\begin{aligned} & 5 / 2 \\ & y / 2 \\ & 5 / 2 \end{aligned}$ | $3 / 2$ $9 / 2$ $3 / 2$ | $(6 / 3)$ | 6739 | 6683 •0,5109 | s. Meson | CS- beat |
| 2X(3511) | $\begin{aligned} & 1 / 2 \\ & 9 / 2 \\ & 6 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & 1 / 2 \\ & 1 / 2 \\ & 5 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ | $(6 / 3)$ | 6910 | 6870 •0,5109 | s. Meson | CS- beat |


| 2X(3556) | ${ }_{6}^{9 / 2}$ | 9/2 | 9/2 | 9/2 |  | $(6 / 3)$ | 6910 | $6960 \cdot 0,5109$ | s. Meson | CS- beat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2 \psi(3686)$ | $6 / 2$ $9 / 2+1$ | $3 / 2$ $9 / 2$ | $\begin{aligned} & 5 / 2 \\ & 9 / 2 \end{aligned}$ | $3 / 2$ $9 / 2$ |  | $(6 / 3)$ | 72509 | 7213 •0,5109 | s. Meson | CS- beat |
|  | $6 / 2$ | $3 / 2$ 9 | $\begin{aligned} & 5 / 2 \\ & 9 \end{aligned}$ | $3 / 2$ |  |  |  |  |  |  |
| $2 \psi(3770)$ | $9 / 2+3 / 2$ $6 / 2$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 7422 | 7377 •0,5109 | s. Meson | CS- beat |
| $2 \psi(4040)$ | $\frac{9 / 2}{6 / 2}+3$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & 1 / 2 \\ & 9 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 7903 | 7906 •0,5109 | s. Meson | CS- beat |
| $2 \psi(4160)$ | $\begin{aligned} & 12 \\ & 9 / 2 \\ & 7 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & 1 / 2 \\ & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 8061 | 8141 •0,5109 | s. Meson | CS- beat |
| $2 \boldsymbol{4}(4415)$ | $\begin{aligned} & 1 / 2 \\ & 9 / 2 \\ & 5 / 23 / 2 \end{aligned}$ | $\begin{aligned} & 1 / 2 \\ & 3 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 1 / 2 \\ & 5 / 2 \end{aligned}$ | $\begin{aligned} & 12 \\ & 9 / 2 \\ & 3 / 2 \end{aligned}$ |  | $(6 / 3)$ | 8638 | 8640 • 0,5109 | s. Meson | No beat |
| $\left\lvert\, \begin{gathered} \mathrm{B}=1-\text { Mesons: } \\ 2 \mathrm{~B}^{+-} \end{gathered}\right.$ | $\begin{aligned} & 9 / 2 \\ & 3 / 210 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 10380 | 10328 • 0,5109 | $\begin{gathered} 10 / 2=(3 / 2)^{4} \\ =5,06 \end{gathered}$ | $\begin{gathered} 8,68 \cdot 9 / 2=39 \\ \text { BS }- \text { beat } \\ 5 \cdot 1,5^{2}>8,68 \end{gathered}$ |
| $2 B_{J}{ }^{\text {a }}$ | $9 / 2^{10} / 2+1$ | 9/2 | 9/2 | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 11070 | 11151 • 0,5109 | $\begin{gathered} 10 / 2=(3 / 2)^{4} \\ =5,06 \end{gathered}$ | $\begin{gathered} \text { BS- beat } \\ 5 \cdot 1,5^{2}>8,68 \end{gathered}$ |
| $\begin{gathered} \mathrm{B}=1-\text { Baryon: } \\ 2 \Lambda_{\mathrm{b}}{ }^{0} \end{gathered}$ | $9 / 2^{10} / 2+1$ | 9/2 | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 11070 | 11070 • 0,5109 | $10 / 2=5$ | $\begin{gathered} \text { BC- beat } \\ 6 \cdot 1,5>8,68 \end{gathered}$ |
| $\begin{gathered} \mathrm{B}=\mathrm{S}=1-\mathrm{Bary} .: \\ 2 \mathrm{~B}_{\mathrm{s}}{ }^{\circ} \end{gathered}$ | $9 / 2^{10} / 2$ | 10/2 | $9 / 2$ | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 10497 | 10507 • 0,5109 | $\begin{gathered} 10 / 2=(3 / 2)^{4} \\ =5,06 \end{gathered}$ | BC- beat $5 \cdot 2>8,68$ |
| $2 B_{s}{ }^{\text {a }}$ | $9 / 2^{10} / 2$ | $10 / 2$ | 9/2 | $9 / 2$ | $9 / 2$ | $(6 / 3)$ | 10508 | 10600 • 0,5109 | $10 / 2=(3 / 2)^{4}$ | BC- beat $5 \cdot 2>8,68$ |
| 2B ${ }_{\text {sj }}{ }^{*}(5850)$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2^{10} / 2 \end{aligned}$ | $\begin{aligned} & 10 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $9 / 2$ $3 / 2$ |  |  | 11533 | $11448 \cdot 0,5109$ | $\begin{gathered} 10 / 2=(3 / 2)^{4} \\ =5,06 \end{gathered}$ | $\begin{array}{c\|} \text { BS- beat } \\ 5 \cdot 1,5^{2}>8,68 \end{array}$ |
| $\begin{gathered} \mathrm{B}=\mathrm{C}=1 \text {-Bary: } \\ 2 \mathrm{~B}_{\mathrm{c}}{ }^{0} \end{gathered}$ | $\begin{aligned} & 9 / 2 \\ & 9 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ |  | $(6 / 3)$ | 10380 | 10570 •0,5109 |  | BC- beat CS- beat $4,5 \cdot 2>8,68$ |
| BB-Mesons: |  |  |  |  |  |  |  |  |  | $3,75 \cdot 4,5>16$ |
| $2 \psi(4160)$ | $\begin{aligned} & 9 / 2 \\ & 7 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 5 / 2 \end{aligned}$ | $\begin{aligned} & 9 / 2 \\ & 3 / 2 \end{aligned}$ |  | $(6 / 3)$ |  |  |  | CS- beat $3,75 \cdot 4,5>16$ |
| 2Y(1S) | $9 / 2$ | 9/2 | $9 / 2$ | $9 / 2$ |  | $(6 / 3)$ | 18684 | $18513 \cdot 0,5109$ |  | BC- beat |
|  |  | $3 / 2$ | $9 / 2$ | $3 / 2$ |  |  |  |  |  | 4,5 -2>8,68 |
| $2 \mathrm{X}_{\mathrm{bo}}(1 \mathrm{P})$ | $9 / 2+3 / 2$ | $9 / 2$ 3 | $\begin{aligned} & 9 / 2 \\ & 9 / 2 \end{aligned}$ | $9 / 2$ 3 3 |  | $(6 / 3)$ | 19375 | $19296 \cdot 0,5109$ | $29 / 29 / 2+\frac{3}{2}$ | BC- beat $4,5 \cdot 2>8,68$ |
| 2 $\mathrm{Xb}_{\mathrm{b} 1}$ (1P) | $9 / 2+3 / 2$ | $9 / 2$ 9 | 9/2 | ${ }^{9} / 2$ |  | $(6 / 3)$ | 19375 | $19360 \cdot 0,5109$ |  |  |
|  |  | $3 / 2$ | $9 / 2$ | $3 / 2$ |  |  |  |  |  | 4,5 - $2>8,68$ |
| 2 $\mathrm{Xb2}_{\text {2 }}$ (1P) | $9 / 2+3 / 2$ | $9 / 2$ $3 / 2$ | ${ }_{9}^{9} / 2$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 19375 | 19399 •0,5109 |  | BC- beat |
| 2Y(2S) | 9/2 9 +2 | $3 / 2$ $9 / 2$ 3 | 9/2 | $3 / 2$ $9 / 2$ |  | $(6 / 3)$ | 19607 | 19615 • |  | $4,5 \cdot 2>8,68$ BC- beat |
|  | $9 / 2$ | $3 / 2$ | $9 / 2$ | $3 / 2$ |  |  |  | 10615 |  |  |
| 2 $\mathrm{Xbo}_{\text {b }}$ (2P) | $9 / 2+3$ | $9 / 2$ $3 / 2$ | $9 / 2$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 20068 | 20024 •0,5109 |  | BC- beat |
|  | 9/2 ${ }^{9}$ | $3 / 2$ 9 | $9 / 2$ | $3 / 2$ 9 |  |  |  |  |  | 4,5 $2>8,68$ |
| $2 \mathrm{X}_{\mathrm{b} 1}(2 \mathrm{P})$ | $\begin{aligned} & 9 / 2 \\ & 9 / 2 \end{aligned}$ | $1 / 2$ $3 / 2$ | $\begin{aligned} & 9 / 2 \\ & 9 / 2 \end{aligned}$ | $1 / 2$ $3 / 2$ $1 / 2$ |  | (\%/3) | 20068 | 20069 •0,5109 |  | BC- beat $4,5 \cdot 2>8,68$ |
| $2 \mathrm{Xb}_{\text {b2 }}(2 \mathrm{P})$ | ${ }_{9}^{9} / 2+3$ | $9 / 2$ $3 / 2$ | $\begin{aligned} & y_{1}^{\prime 2} \\ & y_{1} \end{aligned}$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 20068 | $20094 \cdot 0,5109$ |  | BC- beat |
| 2Y(3S) | 9/2 ${ }^{1} / 2$ | $1 / 2$ $9 / 2$ | $\begin{aligned} & 9 / 2 \\ & 9 / 2 \end{aligned}$ | $1 / 2$ $9 / 2$ |  | $(6 / 3)$ | 20299 | 20265 •0,5109 |  | $4,5 \cdot 2>8,68$ BC- beat |
|  | $\int_{9}^{9 / 2}$ | $3 / 2$ | $y / 2$ | $3 / 2$ |  |  |  |  |  | 4,5 -2>8,68 |
| 2Y(4S) | ${ }_{9}^{9 / 2}+\frac{9}{2}$ | $9 / 2$ $3 / 2$ | $y_{1 / 2}^{1 / 2}$ | $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 20800 | $20705 \cdot 0,5109$ |  | BC- beat $4.5 \cdot 2>8.68$ |
| 2Y(10860) | ${ }_{9}^{1 / 2}+{ }^{11} / 2$ | $1 / 2$ $9 / 2$ 3 | 9/2 | $1 / 2$ $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 21279 | 21263 • 0,5109 |  | 4,5 $\cdot 2>8,68$ BC- beat |
| $2 \mathrm{Y}(11020)$ | $9 / 2$ $9 / 2$ $9 / 2$ | $3 / 2$ $9 / 2$ $3 / 2$ | $9 / 2$ $9 / 2+3$ $9 / 2$ | $3 / 2$ $9 / 2$ $3 / 2$ |  | $(6 / 3)$ | 21554 | 21566 •0,5109 |  | $4,5 \cdot 2>8,68$ <br> BC- beat $4,5 \cdot 2>8,68$ |

9. The fine-structure constant:

We had a film in our base which explained the electro interaction and its variety in great detail based on the example of photons in the electron. This was extremely confusing, so that I cannot remember the details of the electro interaction anymore. Still I remember the electric photon exchange between two electrons. This was in the film as illustrated (see Figure 25):


Figure 25: Electric replacement in a film in our base

This film was very revealing to me. So apparently the electrical power has to do with the different position of the electron and positron in $R^{4}$. One of the particle is below and the other particles above the plane $E$ of the 3dimensional reference space.
Out of Table 1 can be extracted the following:

$$
\begin{gathered}
2(\alpha)^{-1}=(2 / 3) \cdot(9 / 2)^{4}(\text { fine structure constant }) \\
\alpha^{-1}=136.69
\end{gathered}
$$

The value of a differs only $0.25 \%$ from the measured value for the fine structure constant. In the quark model the electric force corresponds to of a gluon/antigluon pair exchange with energy of the $\mathrm{u} / \mathrm{d}$ - quarks (see Table 1). The $u / d$ resonance of $9 / 2$ is in our quark model the most likely resonance of the electron.

This u/d resonance energy $E=(2 / 3) \cdot\left({ }^{9} / 2\right)^{4}$ has enough energy to create a particle/antiparticle pair. So this case a gluon/antigluon-binding-flow is created and corresponds to particle and antiparticle of a gluon/antigluon-flow.

Binds an electron to another electron through electric force a gluon/antigluon pair is exchanged. The electric force for a single electron is thus calculated to:

$$
(\alpha)^{-1}=(1 / 3) \cdot(9 / 2)^{4}
$$

In the fine structure constant the term $9 / 2$ occurs only in the fourth potency, because in the interaction involved each electron provides only four gluons. Only in hadrons and mesons the $9 / 2$ term occurs in the 5 Potency because five perpendicular to each other gluon-field-circle are formed.

In the electro-magnetic interaction is experimentally observed in photons. In our electron model the gluon was nothing other than a photon, whose field is oriented in the 4 dimensional-space (point-particles character of the electron!).

The known bipolar character of the electric force is a direct result of different location of the positron and electron in the 4 -dimensial ether. One particle is located above and the other below the 3-dimensional reference space. An interaction between two equally charged particles takes always place on the same side of the reference space and is therefore always repulsive. By a photon exchange between "above" and "below" of the reference space the photon has to dive through the reference space. When the photon hit the reference space through geometrical reason both the momentum and angular momentum are reversed (see Figure 26) and an attractive character. The dive of the photon through the reference area should be experiments detectable as a "wandering through time (future/past)", but is not the truth.

## Why the charge is spitted in three different parts:

In the derivation of our electron model (see Figure 11), 3 gluon-circle-fields lay flat on the 3-dimensional reference space. The fourth field circuit is always perpendicular to the reference room. This means that external fields from the 3-dimensional reference space can only lay plane against three of the four gluons in the electron, so that contained resonance gluons can roll out of the gluons. Only 3 gluons can apparently couple to a 3 -dimensional reference space, so that a fourth gluon can only interact with particles that are located in a 4-dimensional space. The splitting of the electrical charge into three parts is because of geometric reasons.

## 10. The gravitational force:

The ether near large masses is curved, because mass are the sources of the ether (neutral electric field). It is clear, that the wave function of each particle will have a shifted interference maxima. If the particle fields (wave function of the particle) interacts with the wave functions of the mass $\mathrm{M}_{2}$ (see Fig.27) the course of the particle will be changed to the center of mass. This would be a field-field interaction.


Figure 26: In our base we considered that the the gravitational force is a field-field interaction. Field-balls interact with each other. So arsises the gravitation force. Figure 26 shows what I have seen in a film in our base.


Fig.27: Actual and prospective course of mass M1 in a conservative G-field (curved ether).


Figure 27: Illustration of the gravitational force in another movie. I assume that this figure is a 4-dimensional representation of space. The green 4-stings of this room should differ in lengths at different points in space. It seems that the different passage of time near large masses should be demonstrated through this.

## 11. Our theory of everything:

The theory of everything is based on the following: "Everything is a hollow sphere (see figure 28 and 28b). Actually there are two hollow spheres, which have been assembled into one. The humanity will observe this fact in the future. The boundary of this hollow sphere is a fractal of hollow spheres. In this fractal of "Everything" all have the "same appearance" no matter how much you zoom in. "Everything" has no volume, because "everything" is a hollow sphere over and over again. So there is nothing, but still you can see something. One might speculate that such a fragile composite entity with such infinite fine structure might have infinite space dimension too. This is not true. "Everything" has only six dimensions.
If "everything" is constructed in such an easy way, you would normally think that there is a universal formula. This is not true. No universal formula exists. "Everything" is infinitely complicated. There are an infinite numbers of fundamental physical constants $\sim 4.55 .69 \cdot 10-18$... etc.
The string theory is actually true. But the hollow sphere model describes the world in a superior way compared to the string theory. To unite both theories is absurd. It is impossible.
Our known space has only $4(=3+1)$ space components. In "everything" space takes on the form of a string or curved string. The Theory of strings seeks to explain the world with the help of small filaments.


Figure 28: Illustration of "everything" in one of our movie on the theory of everything. "Everything" is in constant expansion since the beginning of time. The God of all has self-destructed itself or he is exploding at the moment. The minor gods have to move up steadily to fill the gaps the God of all has left in the Great." This theory was explained to me almost verbatim in an asexual voice in a movie shown in our facility.

Simultaneously with the explanations was shown the image of a green hollow sphere on a black background. I think this image had a legend with a six and a gray-green symbol for the coordinates (see Figure 28).

For a better understanding:
How can we imagine a 6-dimensional space? A three-dimensional space extends in three directions up -down, left - right and front - back. A four-dimensional space has an additional direction in space. For better understanding, imagine a three-dimensional space banned into a flat hologram, which has another direction in space perpendicular to the plane of the hologram. A four-dimensional space appears before you, if you see that. To a spring like a hologram of a three-dimensional space it is possible to attach further two dimensions of space to it. Such an object could be so described as 5-dimensional. A point-like hologram is a three-dimensional hologram captured could be described as 6-dimensional space.
And now how have we to imagine a hollow sphere in such a 6 -dimensional space? In a two-dimensional space a hollow sphere is simply a circle. In three dimensional spaces it has the surface of a balloon. In four-dimensions circles are attached perpendicular to each space point. On the surface on such an object you have a total of three spatial directions to move in contrast to the surface a balloon, where there could move only in two directions.
The surface of a 4 -dimensional hollow sphere is a 3 -dimensional space. So a 5 -dimensional hollow sphere must be therefore a 4 -dimensional space and the surface of a 6 -dimensional hollow sphere would only 5 -dimensional. A dot on a hollow sphere of 6 -dimensions would be a 3 -dimensional space, which internal components are folded in the first three spatial dimensions. A circle on the surface of 6 -dimensional hollow sphere would be a 4dimensional hollow sphere. But what is all this abstract multidimensionality about? To describe the world realistic in physics you need at least four dimensions of space?
Even Einstein's Special theory of relativity (SRT) and general theory of relativity (ART) needs 4 spatial dimensions, string theory requires model depending 10 to 11 space dimensions. And if you take a closer look at fundamental particles such as a photon, a particle which can be produced by all forms of matter, it can oscillate in excited states in four different space directions. This measurement results can be interpreted so that the internal components of the photon are four-dimensional! Who only want to understand his environment with 3 dimension will come quickly to an insurmountable barrier of explanation!

## Supplement of a dream in February 2005:

In this dream I see before me in a glass the Grzimek from our base. She is wearing blue clothes and shows me with her index finger a small horn on her head. In our home base this meant: "Think!" Or "Listen to me well". Shortly after in the glass sheet appeared the green hollow spherical image form above on a black background. Instead of the number 6 the following equation appeared at the bottom of the glass sheet: ( $(2,2,2), 3,3,3)$. I had no idea what this equation meant. It looks to me like a collection of the folding of different spaces of different dimensionality.


Figure 28b: A fractal system out of Strings?

Their Theory of All - A fractal system of hollow sphere and power of nature?
In this dream from 5.06.2005 I am a child again and watch on a big glass-screen at the wall or something like that a movie. I think, these movies are about people who live below a giant artificial white roof (in our base we have called it the Building). In one of these movies approximately 10 persons run in and out of one of their houses all the time, some of them screaming very loudly over and over again all the time. In this dream I am convinced that all this have something to do with some "spirits" or "demons" in the air. And in a few other movies in this dream I can remember seeing a lot of people standing in front of me in the glass-screen. Further in this movies don't happen very much. I found them also very frightening, because the behavior of the people was a bit strange.
Furthermore I can remember that at the end of my dream a picture with a white curve in front of a green background (see figure 28b) appeared in front of me. Quite well I can remember the grey lines in this picture on the green background, but not any of the black symbols in it, because they were too small to decipher. In the dream I could place the picture into context. Now I think it is possible, that it all could have something to do with their theory of everything - maybe with their knowledge about powers of nature and 6 -dimensional hollow spheres. The whole picture seems to end neither upstairs nor downstairs. And every symbol in this picture is somehow connected through a curved line with a few other symbols (The power of nature can be
connected with each other through the size of the circles which suits into another circle and etc.)
After this I woke up of this more and more fear like dream. It is possible that I have seen in our base a similar picture like this. But at that time the white curve was replaced by red horizontal one. I can't remember more.

## 12. Our knowledge of particles:

The number 4.5:
My mother showed me in our base the following picture to explain the natural constant 4.5 to me, which is very significant in the calculation of particle masses (see Figure 29). One time she said about this picture, that when two circles are merging into one, then the number 4.5 is created. I think, she wrote physical equation on the drawing beyond my former comprehension.


Figure 29:
Our particles (movie):
In one of our movies which l've seen on a silver screen, sometimes strange circular symbols appeared. I have no idea what these symbols meant. Because other physical movie material was shown in this context, an interpretation of the symbols as particle representations is possible.


Figure 30: Our particles as they were portrayed in our movies

Our barrel-model for the calculate particle mass:
The barrel-model was described in detail in chapter: Father of all. In the movie[1], which I've watched countless times in our base, always a red person appeared on a construction site. On the site stood next to a normal European-looking house, a rusty old metal barrel. On the cover of the barrel were sometimes 2-3 little children, who kept slipping and sliding on the edge of the barrel. I think they set down at various places on the circular edge of the tub. These were sometimes featured in the movie with Greek looking icons (see Figure 31).


Figure 31: Strings (red lines) and the ether (green and grey plains) in our films....


Figure 32: The barrel at construction site with the children in the All-Father movie. The Greeklooking symbols in the circles on the lid of the barrel were in the movie in the circles and not next to them as they are in my illustration. At that time I thought these symbols were a new alphabet. I saw the movie around the age of 8 to 9 .

While you could watch the kids playing on the barrel in the movie, the red person came to me and starts a narration about barrel at the construction site. I mean he said something about that on the lid of the barrel only as 2 to 3 children can find a place and that you can also pick up the lid. In the movie, now the children disappeared and you could now look through the open lid of the barrel into it.
The barrel was inside completely hollow. At the bottom of barrel was a little water with crushed stone swimming on it. All-Father said in the movie about the interior of the barrel: "Try and fill barrel with rubble from the construction site and then calculate the weight of the barrel. (...) A barrel of kids in the tub is 4.5 times heavier than the barrel itself. Two barrels of children in an adult ton weight then? And three tons of kids in adult barrel weight then? (...) And how heavy is a barrel when the barrel of children is filled with two or three children? (...).

About the barrel model our base had movies about circles, which rotate around large circles. An asexual voice told in one of them the following:
"A circle can contain exactly 7 small circles!"
On a black background is a big orange circle with an orbit of smaller orange circles. The asexual voice explain: "Can you see how the circles are rotating around the big circle? A large circle can contain exactly seven smaller circles. These smaller circles can contain also exactly 7 smaller circles. How many of the smallest circles are contained by the big circle? 49!"

Always adding 1, 2 or 3 on the weights, you've found!
In another movie2 about the barrel model a person in black clothes shows me a glass screen with three graysquared signs on it. On the top was the second sign, in the middle the first and the third was at the bottom. If these three signs were covered with symbols or not, was not possible to observe me because they were covered. However the asexual voice told me simultaneously: "+1, +2,+3(...) add these numbers what you have found before on the construction site, which were you given in the .... Have you heard it? Always add 1, 2, 3 to the things you have found before ... ".

There are 4.5; 7.5 and 10.5...
In movie which I saw as a young child around 1990 were hollow-spheres in a dark room. The asexual voice spoke the following: " 3 -dimensional space directions again ..... And after that comes a new hollow sphere.... And after those spheres again three new space-directions.... (....) Always 4.5 ... 7.5.... and so and so 10.5 (More numbers she has not mentioned!) ". Later these numbers were taken in the context of their orange curve which showed the further development of mankind and the number of UFO crashes in our future..... I remember that the asexual voice told me at the end of this movie: "In approximately 300-4003 years they go into the space." Then I asked the asexual voice why this goes so fast and not slower. She replied to me. In 300 to 400 hundred thousand years they will go into the space... "Wasn't that strange? I don't understand this? Why are they doing such nonsense and tell then in the next sentence to you something about their particle-physics or their theory of space?"
Moreover now I recognize that when the asexual voice spoke, it was most times about their science. In contrast when about other things were spoken, it was a sexual human voice always.


What do you think about God?
I have to mention, that in the movies about science the asexual voice repeatedly asked strange questions. One
time the asexual voice wanted to know if I believe in the gods, or what "everything" is in reality, etc. At the age
of 8 to 9 I always answered that I believe in the gods and that I admire them for their size. Later over the years I qualified this statement more and more over the time so that at least at the age of 14 to 15 I gave up to believe in gods, which came after I saw movies of Walter Pfeffer. I began to hate all religiously categorically, especially
the gods. I considered them the roots of the evil religion. During this time I had once a very interesting
"conversation" with a partially asexual voice from a movie about physics, which has been very interested in my sudden change of heart. This conversation had the following character:
A deep male voice: "(...) and how do you imagine the phase and the interaction space? How do you think they are linked to each other?" I: "They are twisted together in a certain angle! "
The deep male voice: "What? Should they be rotated into each other? OH?"
In the movie I saw now a red finger slowly rotating in front of my nose and then tapping on my nose. This has made my mother frequently with me when I was a young child.
Later the asexual voice wanted to know: "God is ....?"
Me: "God don't exist! All this is idiotic nonsense! It is totally illogical to believe in the existence of a god. Over or beneath any form of life exists another form of life. There is no end to everything - it is the principle of nature. Such a world has no place for gods."

The asexual voice: "Well, everything looks like this! Everything is three folded and God reigns over all."
The movie displayed Figure 33. This was an open provocation. I made expressions of discontent in the best manner. But the asexual voice didn't stop. With an inspired voice she told me what they thought about God and nature: "You people need to love. Why don't you realize it? Well! The 9th Commandments "You shall not bear false witness against your neighbor is limping. This didn't know anybody, not even God. But all other Commandments are given by God. You should not have any doubts over these commandments! - Questions are the roots of evil! Your question is totally out of place. Even in nature, God is everywhere. - Everything is in reality a computer nobody can handle!" With this statement the discussion with the asexual voice ended! Had religious fanatic made the movie or open provoked they me, so that I reveal my anti-religious position more clearly?

## 13. About the mind or rather the ether of space

About the spirit of space was following reported in our base: "The spirit is made of electrons, positrons and vibrations. Magnetic materials like iron, nickel or cobalt are bad for the spirits and non-metallic materials like Wood or plastic are good for it. Also water is bad for them. Spirits have in water a much shorter lifespan than they have in air. In vacuum it is the longest. Magnetic materials are bad for the spirits, because they are magnetic too."


Figure 34:Green Ghost balls fly around a magnetic material.


Figure 35: A machine with which one can look in the future. I believe this device was about the size of a typewriter and consisted of compact metal.

For these reasons it was prohibited in our base to wear magnetic substances on the body. For example our zippers were made of aluminum or plastic and rivets of metal didn't exist in our base.
On the subject of magnetism and spirit we had make our own short movie. In the movie a white-robed person was standing in a garden of the base. On her right side was an 8 liter large silver metal block. It was magnetic because all the time small green mist was rotating around it. The mists were small parcels of spirits that were brought into the magnetic field of the block. After time the green spirit bubbles collided with the magnet were stuck on it. There they began slowly to dissolve. Separated a spirit bubble from the magnet triggered by a wind blow, flew it parallel to the ground away from the magnet. Then it described in the air above the magnet an arc with a diameter of 2 meters before it crashed the other side of it (see Figure 34). The spirits were stuck there again. On our base was reported that one could look through the 4-phase of the spirit or field in space into the future.
Possible made it a special machine (see Figure 35) that was connected with the 4phase of spirits. If you had a question about the future, the question must be placed into a tray of it. In the distant future, you would have answered this question yourself. The machine gives now an answer through the 4-phase mechanism. This answer is always associated with a particular vector, since the future isn't fixed at any time. There are possible different developments of the future, in which you would give to your own question different answers. Partly these different futures are connected to the machine itself. The vector described the different possibilities of the diverse futures. It shows you how likely the different answer in the future are. Strictly the vector of the 4 -phase machine is actually a 5 phase one. But this is not an issue here. I've never seen such a machine in our base. But in a movie about the base the special machine was operated by a blonde woman, who looked a lot like a blond girl in our base I liked very much.

## The five colors of the spirit

We thought in our base that spirits can have up to five different colors in the space.

1. Yellow spirits were anxious.
2. Green Spirits were kind and prudent
3. Blue Spirits were happy or in love,
4. Red Spirits were angry
5. Orange spirits were frustrated or sad.

We were able to assign these different spirit colors to certain brain areas (see figure 42). For example, was someone sad at first the right rear spirit in the sensory hemisphere is colored orange and shortly afterwards all the spirits in body are colored orange. Red Spirit right in front of the brain could color in spirit in the body etc. The spirals of spirits in phase space had width of a human head and when they were above the head of a human in an excited state.

The garlands of spirits in phase space
With our Bereschewan4-seat was possible it to fold of the surrounding space of interactions like a book. Then you were in a black space with a long brownish-red string. This string is the folded space of interactions. Really interesting in the phase space were the colorful spiral like plants in the black space, which had width of my head. About the plants was reported, that they were the spirit of humans. The bottom of garlands of humans was colored in orange-red to red-brown and top was colored in white, blue, green or yellow (see figure 36). The spirit garlands had two walls. Periodically through the day they had black shades, which correlated with a complete rotation of them. So the correlation must have its cause in a physical effect like rotation of Earth. The future presence or absence of a


Figure 36: The garlands of spirits in phase space. person's had an influence on the appearance of a spirit garland. Was someone in near future a few days absence, his spirit garland would be shaded in the days before. With Magba I observed this effect on a scientist in a laboratory: shortly before his absence for several days his garland was slightly shaded (see figure 137.2). Even organic changes in the human brain like a stroke on the head had an effect on spirit garland before the physical event occurred. At time of the strokes stings of spirits were visible on one the side of the brain and then vanished after some days. A blow itself resulted in greenish to orange discoloration of the spirit, which I had seen myself (see figure 37). The spirit garlands have symbiont too. They are only a few centimeters thick red string that ran parallel to the human spirit garlands (see Figure 38). They are the pets who lived with hum.


Figure 38: The garland of spirits of an animal.


Figure 37: Someone who will have a physical event a few days later.

Figure 39: Ghost-thrill-"threads" in the three-leveled dark-room (Film / Bereschewan)


Two fingers at one hand:
and two fingers at the other hand:


Figure 40: Bereschewan-cables in the dark-room and a extraterrestrial being in a ghost-ball


Garland's spirits are like trees which can be chopped
We were able to earn red points in our base if we made contact to the spirit of people outside the base and could deflect them. The more the garland began to move, the merrier points you got by the machine. I've seen how the spirit garland of a person through deflection fell slowly down. Within days a new spirit garland would grew for the person. The Bereschewan-seat could film the phase space and make a fast motion movie of it.

The five fingers of the spirits
The individual spirit colors red, orange, yellow, green and blue were assigned by us to five fingers on two hands. The color red and orange were dedicated to the left hand and the colors blue and green to the right hand (see figure 39 and 41). The yellow spirit finger was located between both hands. He could be moved equally well with both hands.
In the finger symbolism the numbers of the fingers are connected to dimensionality of the spirits. The symbolism shows the distribution of the five dimensions of the spirits into two different spaces, one is the threedimensional "room of interactions" and the other three-dimensional phase space. About the significance of this finger symbolism I cannot say anything.
The connection between the time of day and the direction of the spirits had I drawn in my picture incorrect For a better understanding of: black space and the phase space had the same meaning in our base. It was the space when a Bereschewan-seat was activated and you walked out of the space of interactions. Since it was always dark in the phase space, this room was called dark space too.


Figure 41: The five fingers oft he spirits. Two fingers on one hand and two fingers on the other hand. So one finger must be in the middle on both hands.

Spirit of human brains and of other objects
Like I had expected, the issue about the spirits chased me in our movies me all the time. So in one movie someone had a conversation with a seated woman. In the movie her head was semi-transparent, so that underlying brain was visible. While she was talking, greenish and bluish mist spread through it. In another movie a single silver brain in a box produced colorful nebula (see figure 42). When I was young, I thought the silvery brains in our movies were artificial brains. Now I would not be surprised if they are in fact normal human brains which have been manipulated. In a movie of this kind in a network of tubes a brightly colored cylinders moved through them. The cylinders represented spirits of each person. The cylinders were coated in the five colors of the spirits. All these movies had a demonic touch as so many movies in our base.

The 5 colors of the human spirit saw I in the forehead of various people in our base - especially behind that of my father. In a movie about in which a baby was in a green balloon filled with air, I saw its spirit color glowing in its skull. The spirit color of the baby was green-blue and that of my father was red-green.


Figure 42: Spirits of human brains and other objects.

Spirit "looks" always away from the sun
(see also the chapter "Outside in a Bereschewan-seat")
On many of my trips to "outside" with a transmitter spirit in the Bereschewan-seat, I found that the spirits were looking away from the sun. In other words it was not possible for them to look directly into the sun. How the sun and the spirits interact, shows the following pictures:
In the figure 43 , the spirit is rotating in a person's body. The eye-movies portrayed the effect quite often. Over a sick or faint person you would rotate around yourself for hours without hearing any thoughts of the person. The rotation was some kind of dream. At midnight the spirit was pointing south, in the morning at six o'clock to the west, etc.
Died someone the spirit spiral ended directly in phase space. Was the person in a coma or brain death there were several days a thin greenish mist over the spirit spiral (see Figure 43). Once I observed a spirit of Garland which end was an orange shaped hat. My brother Magba believed that this was the spirit of a human, whose light would be terminated. So this person will be murdered in a special way.


Figure 43: The spirit of a person at 6 a clock, 12 a clock ....

## Spirit in water or in plastic

An unusual feature of the spirit is its absorption by water or plastic. It is possible to dissolve spirits in water. The water would emit colored light in the phase space, as long as the spirit would transmit its energy into water. This feature of water made was used for our beds. They had been fortified with spirits, so that water will emit colored light (see Figure 45).
The meaning behind such actions, was to provide us a better service with spirit during our sleep was assured. The dreams at night are better if spirits are vaporized for absorption. Related to the absorption of spirits is the freezing of them in plastic. I observed in our base an adult male who made with of liquid plastic models of sea urchins, fish or starfish. He explained that some spirits of humans are attracted to certain objects and will linger in them. When the plastic became hard, a spirit who lingers in the object would be frozen. The spirit in the plastic remains captured in the model as long as the model is intact (see Figure 44).


Figure 44: Spirit is frozen in plastic model

Our lees:

coloured - water
writer pump

Figure 45: Dissolved colored spirit in the water of a bed.

Can a person look into the future or the past?
I don't know the answer of this question. I only know that spirits (the field) are made out of electrons, positrons and of electromagnetic waves (Photons). Because ferromagnetic materials like iron, nickel and cobalt harm spirits, they were not allowed in our base. The interaction implies that the Phase-space field has a magnetic character. I remember to see out of the Bereschewan-seat how small spirit-spirals rotate after contact with magnets. When they hit a magnet, they began float in circles through the space till they hit the magnet again and so on.
I also remember a film about a machine which was able to predict future. One had to ask the machine: "How will be our answer for the question in $x$ years? Give me the answer today." You placed for this your question in a cupboard of the machine. The machine will give you several answers and a probability vector for their occurrence. Of course that sounds crazy, I know. A friendly Hindus once thought that the space has 4-phases which would make it possible to look into future. He hadn't understood everything! One must have told him about this in our base. I was told that spirits are be 2-dimensional and are formed out of 4 -strings which are built into green lattice. The lattice could be surrounded by a red fog in a three space direction in the sixth dimension. Together with the three-dimensional field which has three space-directions it makes 6 -dimensional structure.

Extensional explanation to the spiral structure of the spirit-thrill-heads and why they are avoiding the sunlight:
One might expect something like that when the $5 \rightarrow 6$ dimensional field of one object is captured by the surrounding. Big masses like the sun or our planet have springs in the ether. The spirit-springs of smaller objects align to the surrounding gravitational field. With the help of a spirit-string one should be able to look anytime in the direction of the sunlight and in direction of the gravitational field of the earth. A fixated spirit-string should also have a spiral structure; because on earth we make a complete circulation through the interplanetary ether in 24 hours (compare figure 46). That's why you can only look in the same direction of the sunlight when you travel with a Bereschewan-seat.

How to travel with spirits:
About the traveling with spirits nobody told me anything in our base. But I think to get a curved spirit-thrill-head in space is not very difficult task when you are surrounding by a magnetic field. The field of a particle has a magnetic component in the 4.th direction of space. When this is correct, the ether in the phase-space has magnetic qualities. It means that there exists one space-direction in the ether, which is pointing to the magnetic north-pole and another which is pointing to the magnetic south-pole. A consequence is that spirit-thrill-heads would reject each in the phase-space. Only spirit-thrill-heads with an opposite magnetic orientation would accept each other. This would result into a semicircular formed spirit-thrill-head which starts in the point A with a normal magnetic orientation in the 4th space direction and which ends in the point $B$ with an opposite magnetic orientation in the 4th space direction (see Figure 46).


Figure 46: Is the space of interactions in the 4th space direction magnetized, so the expanding field in it too, because it is an image of the room of interactions which is enriched by virtual electric particles. If magnetizations of the spirit strings are parallel to their orientation in space and the poles are not changeable, the spirit strings are pointing away from the center of mass. The strings even migrate back in to space of interactions (see our Bereschewan-seat).

## A further consequence of all these spirit-effects is shown in next figure 47:



Figure 47: Contains the field information about past and future?

## Explanation:

When there exist a detailed impressions of the 3-dimensional electric field in the room of interactions in the $5 \rightarrow$ 6 dimensional field, it is possible that it contains information about future and past. All this you can see in my picture. On the left side of space of interactions in red you have a shorter 4-spring that has all impressions of the room of interactions in them. This field contains the projected results of a past from space of interactions, where time was slower. This field contains now the information about your past. On the right side opposite happens. The 4 -string is longer than at the room of interactions. Here all impressions of former pasts have been projected into future faster than it has happened in the space of interactions. That is why the field here can contain information about possible future developments. Not the complete future!

The spirit-string which goes along the red line in the space of interactions is like spirit-travelling through the space. With other spirit-stings, which points into fifth space direction, you can look into the future with a possibility vector of the resulting spirit stings.

