#9
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Y: This is from a paper I did in 1991 called *The Lila Paradigm.* Its sub-title is *Connecting Religion and Science*. At that time I thought that people might be more interested in that kind of a title. A general person is; but specialists are not. They either want religion of science. Anyway in my introduction I say,
:34

Introduction

For the last few decades many scientist and theologians, physicists and metaphysicians, cosmologist and philosophers among others, have been seriously seeking the connection between science and religion. Science deals with that which is physical and religion is mainly concerned with that which is non-physical. The Lila Paradigm is an attempt to provide an over all frame work which encompasses both.
1:22

Edward Tryon, a physicist, was the first scientist to suggest that a universe was created out of nothing. Since that suggestion was made in 1973, many of the scientists have come to the same conclusion. What scientists mean by nothing is that which is physically nothing. Strictly speaking the universe cannot have come out of what is truly nothing because if the universe has come out of it, it is at least that out of which the universe has come and not a true nothing. These scientists are suggesting that the universe has been created from that which is not matter or time or space or energy.
2:02

Similarly theologians of the various traditions say that God, Allah, Brahman, etc. created our universe by fiat, and that that creator is non-physical. If we assume that these scientists and theologians are correct, then what is this that is physically nothing yet is that from which our universe of matter, space, time and energy is created? What is God that God can create our physical world by arbitrary choice?
2:45

The first verse of the book of Genesis in the Bible is, “Bereshit bara Elohim et hashamayim ve'et ha'arets.” In English “In the beginning God created the heavens and the earth.” The Hebrew word used for God is Elohim. El is the word for God; and Elohim in its plural form, also means quote “God”.
3:17

Just as an orchestra is one if taken as a single group, yet it is also composed of many players. So God Elohim is one and is also many. Another word used in Genesis for God Yahweh or Yahweh which literally translated means the mighty ones, plural. Also in Verse 26 of Chapter One of Genesis, God says, “Let us make man in *our* own image.” In the many ancient Indian traditions, Atman with a capital A or God is said to consist of multiple of atman’s with a little a or selves.

4:18

> In the *Lila Paradigm* a large number of Divine non-physical individuals collectively are the non-physical existence, the nothing that creates our world. What do these non-physical individuals do in order to create our universe?

1:41
And that ends the introduction. And the answer, of course, is the paper. I got some reaction from physicists, not a lot, but some. They wrote back and said, “Come and see me and…”
5:00
B: Ah! Great! Ken Miller (Kenneth R. Miller) also speaks a lot about science and religion.

Y: Who does?

B: Ken Miller

Y: Oh, yes. Yes, I know Ken.

B: (acknowledges)

Y: He lives in Colorado now and is sort of a Buddhist monk.
5:17
B: (acknowledges) He says, “Actually the universe has too many intelligence into it, is too brilliant just be just adored. And at the same time, it is too divine just to be explored by science.” He says, “The bird has to have two wings to fly.” And he says, “I am looking for this quiet corner where the ancient… the eternal battle between science and religion stops.” He says...
6:01
Y: He wrote a number of quite good books that sold quite well. But it didn’t transform society. I am going to show you something now. Remember that paper you have from Michael Baker?

B: Yes.

Y: There’s an appendix.

B: Yes.

Y: An appendix to this. This is the first one, 1990, when this was done.

B: Ah.
6:34
Y: And it’s been superseded in so many ways that I haven’t shown it to you before (be)cause now you know what my update versions are.
6:47
B: But is beautiful. It could be useful because... Aha! The boson. It is beautiful really because maybe we need the history. This will help especially these forms; maybe we will come to them.

Y: We will.

B: May I say something about this?

Y: You can say anything you like.
7:18
B: Yes. I was thinking when introspecting…when observing this connectivity curve which is the source of everything, so to say, and when trying to obtain N the number of non-physical individuals by observing this curve. The first method we know it is well observed by us. But this second method, it is based on finding rest mass for tau and anti-tau over the rest mass of positron/electron.
8:07
So we have here, actually, the constant which is obtained by measurement by physicist. And then we have here, actually, the probability for a structure or arrangement like this to appear when we have enough density of arrows, over probability of structure like this to appear, where we have plus/minus.

Y: For an electron.

B: Electron/Positron. It's it correct.

Y: Yes.
8:50
B: But I was thinking that maybe…and what we obtain by applying this procedure is that N is 10^{19}; and by the other way when we are using… Aha! You see, this is what I need. And now I see. He actually…this is [I] not [I] plus one. Clearly, what I suggested to you.

Y: Which is what (he) said too.

B: Yes. What it was, of course.

Y: I agree. I said we would have to call Michael to see what that…
9:27
B: Yes. Maybe this doesn't change a lot because if I exponent this from the other sides, I could have X on [I] plus one is [I] factorial N to degree [I] minus one over N factorial N to N minus one.[$x^i + 1 = \sqrt[i]{n^i - \frac{1}{\sqrt[N]{N^{N-1}}}}$?] And, of course, when A equals N, then X becomes one; and we have N actually. We have all the individuals connected to all the other individuals including themselves. Which is great!
10:09
Y: Where did you get 10^{19}?

B: 10^{19}? I saw it somewhere, I believe, in *Radical Theory* although there were a few mistakes to be corrected.

Y: Well, OK. That's good enough.

10:20
B: That's another question. But I saw it in *Radical Theory*. And I saw that 10 to something like this is obtained. And I believe that maybe, maybe, I should go further on…deeper. But when we are taking the probability for a structure tau/anti-tau to appear, we are taking just the probability…just the first appearance of this structure which is tau.
10:55
But in order to have rest mass, we should have movement which step suggest so often. And in order to have movement, we should have also the second structure like this to come into picture. Isn't it so?

Y: Yes.
11:15
B: We want…for instance; this is the number of non-denials 10^{17} for a structure…for a forked structure to appear into picture, this one. But later on we…not later on, this implies time, but we should add more arrows, more non-denials in order to have the second structure tau to appear. And only when we have two structures, and these are different points on connectivity curve, only then we have movement. And only when we have movement, we have resistance to movement, which is mass.

Y: Yes.
11:57
B: So what I suggest is…here maybe, maybe the results will be closer to 10^{23} if we put here both the information about both appearances of tau, the first and the second one because as you said somewhere movement is…

Y: I see your suggestion.
12:22
B: Difference of perception of space because we should have mass. We should have resistance to movement in order to have mass. And in order to have resistance to movement, we need two appearances of these forked structures. And this means two different densities of non-denials.

Y: (acknowledges) I see your suggestion. We'll have to do that.
12:57
B: And here we have N somehow; and we here also we have N somehow; and out of this, we should obtain N. And maybe it will be a better approximation.

Y. Maybe we will have to check it out. I got your suggestion.

B: But this is very useful. This is very useful to have for us.

Y: Yes.
13:21
B: Because (of) all this, I should have to find out myself. And now I see, yes, it is this way, but would have helped me if I had this, you know. Maybe it is better when I put effort and… This is implicitly (implied) already in your papers, of course; but it is nice to see it explicitly.

13:51
Y: That was the first paper.

B: Yes. It was great. Could we copy this?

Y: Yes. I don't see why not.

B: Thank you. Aha! So the curves are explained. This is excellent; this is what I missed in a way, you know.

Y: Somebody wrote things.

B: Although it is clear to me, it is clear on some level, but… Ah! OK. Thank you.

Y: Alright. Now, what was I going to do next? Ah, yes, here is the general formula…

B: (acknowledges)

Y: …for mass.
14:45
B: Aha, for mass. Maybe I am wrong because if it is mass… Maybe here somewhere this [I] plus one is hidden. Maybe the difference… Aha. I know now. Yes, this is mass; and yes, this idea is included, actually, because you see, when I… What should I do because these are probabilities is not to subtract but to divide? And when I divide I lose one of these.

Y: Aha!
15:26
B: Which is excellent, now I have the whole picture. The missing link is…because, you see, I came to this, that mass is not just the probability of forked structure to appear for tau, or not tau but, tauon. What is the pronunciation tauon?

Y: Tau.
15:53
B: Tau. But the difference, and the difference in the language of probabilities, is divide. To divide it and maybe when I divide this second appearance of forked structure, I lose this plus one because, actually, it comes out from connectivity.
16:14
What this plus means is actually… I have X to (I) plus XX… I have in a connectivity curve proofed by Baker X or maybe by somebody else, due to connectivity. X to [I] plus one equals [I] factorial N to [I] minus one over N factorial N to N minus one. And this means X multiplied by X by X by X by X which means X and X and X and X and X and one additional X. But maybe [I] need this additional X for normalization somehow. This is [I] plus one times X, gives me X to [I] plus one. And this is the ratio between the current

combinations of non-denials over all possible combinations when I have N by N. [$x^i + 1 = \sqrt[i]{n^i - \frac{1}{\sqrt[N]{N^{N-1}}}}$?]

17:24
Y: Yes.

B: Which is probability, which is connectivity.

Y: Yes.

B: But maybe this still stands (means) that we should have two…

Y: You notice that the E is there.

B: I noticed; and I found it, here actually. And I was thinking about it.

Y: Now.

B: I mean…
17:45
Y: When [I] is a small number of one, two, three, four, five…

B: Yes.

Y: It doesn't make much difference; but when it gets a little higher, it does.

B: And this M is what?

Y: M is mass.

B: Mess.

Y: Mass.

B: This M is mass.
18:04
Y: This mass.

B: This M, this M, this M inside the square root? This M? E to M over N?

Y: Yes. It's itatory (iterative).

B: What?

Don: Recursive.

Y: It re-curses.

B: (acknowledges)

18:22
Y: The number found here is…goes there.

B: (acknowledges) Like iterative process, iterative process for…

Y: Yes. And then that makes fine adjustments when you get out to about the sixth or seventh place.

B: (acknowledges)

Y: Then that will make a…

B: Yes, I know, yes. I know.
18:47
Y: OK. I want to ask you a question. Earlier today you explained to me about the difference in the Lila Theory of the difference between pi and e. And I understood it. And now, I have forgotten it. So you do that one more time.

B: Yes, yes, of course. There are two kinds of connections between the individuals. The first kind is due to cross overs. For instance…

Y: Yes, it is due to cross over and makes pi.

B: Cross overs makes pi…

Y: Pi and…
19:45
B: And bifurcated sub states makes…

Y: Bifurcated makes e.

B: Makes e. Yes, this is correct because it is very simple.

Y: This is important.
19:54
B: This is very important; and this is why I suggested in few formulas here that we should think over again if maybe e should be added also where we have just pi. And the other way around, when you have just e maybe pi should be also included into the picture.
20:19
Y: Well, it depends on where we're dealing with a circuit.

B: But there is inter…but there will be overlapping. Maybe this is why. May I explain why?

Y: Yes, go right ahead.
20:30
B: For instance, in order to obtain pi, we have one individual here in a state of non-denial to another individual here. So this relation is just one. This is one squared. Now…or and/or in probability is always plus, we might have another

individual in relation with two other individuals. These two other individuals could be in relations, for instance, if this is A, this B, this C. B to C, C to B, and A is in relation with this one; and A is relations with this one; and this is four different non-denials; and this is two squared.
21:22 (insert diagram)
Or we might have one individual A in relations to three other individuals B, C, D. And the over all picture for this structure is B to C, C to B, C to D, D to C, B to D, D to B. And A is in relation with these ones. And so we have one, two, three, four, five, six, seven, eight, nine, we have nine relations. And this is three squared. One more, and then I will proceed.
22:02
Y: So this is not crossed out?

B: This…

Y: That one. That's good.

B: One, two, three, four, five, six, seven, eight, nine.

Y: Right.
22:12
B: Yes. One more picture. We have one individual here, then one, two, three, four different individuals, B, C, D, E. We have relations B to C, C to B, C to D, D to C, D to E, E to D, B to D, D to B, C to E, E to C, B to E, E to B. And this is all that exists. And then we have A connected to B, A connected to C, A connected to D, A connective to E. Now we have one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve plus four; it is sixteen. And this is four squared.

Y: Right.

B: And because this is all spread out to certain individuals, then we have one over the whole circuit is view by one individual.

Y: By A in this case.
23:18
B: A in this case. And so why? It is why we have one over one squared. Or we might have one over two squared, or we might have one over three squared, or we might have one over four squared. Or one over five squared. Or and so on, and so on, and so on and so on. And this sequence leads to p squared over six.
23:48
Actually one of the approximations of p(π) and we might want to know the error. As you always stress out here, which is excellent, which is needed… We have p is… This sequence is leading to square root of six multiplied by one over one squared, plus one over two squared, plus one of three squared, plus so on, and so on. [$6^2(\frac{1}{1^2}+\frac{1}{2^2}+\frac{1}{3^2}$?]

24:21
Y: This is the formula for pi?

24:24
B: Yes. And this if we find the values and might find with Mathematica p(π) square over six is approximation of pi(π) over two [$\frac{\pi}{6} \approx \frac{\pi}{2}$?]. So this is why we might perceive, we might accept that these cross over arrows are leading to pi over two. And this is why… (acknowledges)

Bret: I did it.

B: Ah! You did it.

Bret: ( )

B: Ah! OK, great! But this is different…

Bret: Pi squared over six and pi squared of two and the difference between the two of them down here.

B: OK, great!

Bret: I'll show you in a minute.

B: (acknowledges) So this is why he uses this pi over two when he is finding the elementary T unit, being N multiplied by K minus one. All this is… has is raised to exponent D because we have N individuals; and they are N and every…and each of each, is has K non-denials to arise from it. This is one degree, if we take into account that each and every one of these has also K as an average number of non-denials arising from it. Then we have this squared. Or…now the third level is each and every one of these is also branching into K, into K, into K.   We got a fractal here and maybe fractal geometry. This is why we have edge of chaos and so on because this is fractal. And then this is on third degree and so on and so on. This branching further on to the edge of chaos...

Y: (a

B: …when life appears. And this is why we have here D. And now, now I am reaching the point when we spread out this to one specific individual. Then this is the same as we divide this by pi over half because we have already obtained that this cross overs are leading to pi over half. So we must normalize this by dividing it to pi over half. And finally we got his equation here which T (of/over?27:14) D is N multiplied by K minus one. This is all on degree D depending on the level of the depth which we want to obtain. And this is all spread out or normalized by P (pi?). And he has the two here. And this is how this formula is obtained. This is how.

Y: It's important I think that it's from…in relation to a single individual.

B: Yes. Yes, it is stressed (stretched) out. It is taken in to account, yes. I needed some time to come to this. And then this is how pi comes into picture, pi half. Now the second point is how to obtain e.

Y: (acknowledges)

B: Now e is obtained by…from bifurcated substates. For instance, we have here E to F. E is in state of direct knowledge of F. And first E could be in state of direct knowledge to all. So this is just one. There are no combinatorics here. We have one. Now second picture is we have E which is in state of direct knowledge of F; and we have a branch here, a non-denial here and a non-denial here leading to Z and O. Now we have two non-denials in this bifurcated. This is what is to be stressed. When we have bifurcation or something leading to space, then we have E. E is what leads us space and therefore to movement because movement is changing the perception of space and therefore to mass.

Y: (acknowledges)

B: And this is where from we obtain E because we are dealing with bifurcation here. Now when we have two of them they could be switched. And we have, actually, two factorial. We have…you have explained it here somewhere. You have a picture of all the possible…in this *Radical Theory.* Ah! This one. This one shows that this is correct. We have six here for three. We have six combinations and six is three factorial. This is what shows that this is correct. I could have E of O, E of Z. So this is two factorial. And three factorial is clearly developed here. The third picture is…I have [I] to F; and I have three bifurcated substates. These are P, Z, O. I have this to P this to Z this to O. But these three could be combined. And this combinations are three factorial because I could have P Z, Z O, P O, O P. There are all of them given here. I checked them; it is correct. So we have six of them; and this is three factorial.

Y: Yes.

B: And D…because this is the case and because the whole circuit is perceived by one specific individual. This is also spread out over the circuit. And this is why we have one over one factorial. Or if this is…if the first picture is introduced. Or we might have one over two factorial, the second picture. Then this leads to two factorial. Or we might have, when dealing with bifurcated sub-states, to one over three factorial, and one over four factorial. I have done it here also somewhere. Unfortunately, I don't have the original. These are the checkings; these are the combinations. This is for case when we have three. And we have six of them, one, two, three, four, five, six. We have six of these combinations. But you have this is your paper.

Y: (acknowledges)

B: And we have the sequence plus one over five factorial and so on, and so on, and so on. And this leads to E. And because this…

Y: So

B: Because this or…

Y: Let me ask one question here.

B: Yes.

Y: Since N is finite then E…the true value of E must stop.

B: It must stop; and it will be the error. It will affect the error we are making.

Y: (acknowledges) same is true for pi.

B: The same, yes. The same is true for pi.

Y: That answers my question.

B: Yes, OK.

Y: And you have clarified this. Go on.

B: So because we have or here, we might have bifurcation and bifurcated sub-states; or we might have cross overs which is something similar. But still there is a difference. And because we have both of them, we have E to pi.

Y: (acknowledges)

B: We have E to pi because all these structures are also subject to these arrangements. These ones are also subject for these ones. And also when we have or we have this or this plus, or this plus, or this, which is different plus. Or this, or this, or this, and all of them will give us E to pi. Maybe pi to E. And this is why I stressed one of the last sessions, that there is an…a relations saying that E to pi is always greater or equal to pi to [I]. How is it possible one is to be greater, one's to be equal? Because these two are irrational. This is why such relation…

Y: This is always greater than that or equal to. .

B: Yes. Yes. So also because we might have taken for number of non-physical individuals to be 10 to pi to E. Which is similar but still this is, this maybe should be stressed somewhere just as a remark, that this is valid; this is proven; this has been proven. And it can be checked with Mathematica. We could take, for instance, five members of these sequence for E to pi, and five members for pi to E, and check if it is true because the lesser the number of members we took, the greater the error. But nevertheless it will be information for us.

Y: Yes.

B: And it is fortunate to us that the lesser the members, this is more visible. This will be more visible.

Y: Interesting.

B: Yes. So this is the first way to obtain N. And now the second way to obtain N should be also checked. The second way which is…I have…

Y: I'll be right back. You can go ahead and explain to them how to check it.

B: OK, if they want.

Don: Biljana, just one quick thing. Since the number of individuals is definite, those series are not infinite series.

Bret: They terminate.

Don: And so they will terminate. So pi and E will have definite values, fixed values.

B: Yes, yes.

Don: So E to the pi will exactly equal pi to the E then.

Bret: I don't follow that is so.

B: Pi. We don't know. The fact that it is not infinite doesn't mean that E to pi should be pi to [I]. I believe.

Don: No? That they are fixed values? They are definite values.

B: Yes, but maybe not for the number of…maybe for other number, not for the number of non-physical individuals. You know there is a subtle difference. It is true that for a finite number E to pi should be at some point pi to E. But this some point might be not the number of non-physical individuals, but something else, N-1 or M, something else.

Don: OK, I misunderstood.

B: This is what I think. Maybe I should think more.

Bret: Is this considered mathematical identity? I haven't been near this for thirty years, is that mathematical identity; E to the pi equals pi to the E?

B: Actually, yes. 10 to E to pi…

Bret: OK, well, no.

B: Is 10 to pi to [I]

Bret: Is E to the pi transformable into pi to the E?

B: No, it is just…no, no, it is not transformable.

Bret: So it is not necessarily equal.

B: No. It is like this, greater or equal.

Bret: I am not sure what your basis for saying that they will be equal is then.

B: He says that they…at one point for a finite number of members of E…

Bret: I understand that…

B: N for another, not the same, for another finite number of the members of pi which is also to be emphasized.

Don: (acknowledges)

B: When we want to have them equalized, yes, we have a finite number of members, but different number of members.

Don: OK.

B: One finite number of members for E and another finite numbers of members for pi. And then we have equal; but this doesn't mean that this finite number is the number of non-physical individuals. It could be another one.

Don: OK, fine. Thank you.

Y: OK. Now, you are going to show us how to check this E.

B: (acknowledges) Now, yes. So this was one way to find the number of non-physical individuals. The second number described in your *Radical Theory,* and I saw it here better, I came to this but (by) effort. And now you have it clearly here.

Y: (acknowledges)

B: So this second way is by measuring the ratio of rest mass. This second way is…we have a measured value done by physicists because we must have something outside...

Y: (acknowledges)

B: …and checked with experiment. So we have a measured value for a ratio of rest mass of a pair tau/anti-tau over electron/positron. Up to this point, this is physics; this is which is known in physics.

Y: Yes.

B: And now here Lila Paradigm came into picture by saying, “In Lila Paradigm we know what is tau/anti-tau and when with the remark that it is not time, and when does it appear in the connectivity curve. For connectivity curve, we have X is [I] plus one, as he says, or [I] we should decide. [I] plus one square of [I] factorial, N to [I] minus one, over K plus one square root of N factorial N to N minus one factorial. And for every specific [I]…and [I] is the number of non-denials branching from one non-physical individual, so for [I] -1 we have one •(dot). For [I]-2 we have another •(dot), for [I] -3 another, another, another, and so we have the connectivity curve. Now there are…there is probability… According to Lila… Yes, yes, great! Here is…these are negative, negative, negative, negative, negative. And when we reach the point when [I] equals N, then we have X is N plus one square root of N factorial N to N minus one over this X equals one over N factorial N to N minus one, N plus one degree of the square root. And this is N. This is a situation when [I] is N and this means…”

Y: This is connectivity of one when they are all connected and…

B: This is connectivity one, yes.

Y: These are lesser magnitudes.

B: Yes, because this is X, this is the X which is connectivity. And at one point, we reach one. And we reach one for [I] equals N. And because [I] is the number of non-denials branching from one non-physical individual, this means that every non-physical individual is connected with…with each and every one of the other non-physical individuals. So we have a total connectivity. The total connectivity is one because this is like a probability for so much non-denials to be connected because the finishing of probability is possible cases over all existing cases, or extant as you say, extant over all existing cases. This is what connectivity is; and this is correct. And so when we have total connectivity, then E equals N; and this is one. Now further on. First we have non-denials like this. Then when the density is bigger and we obtain space and you say this is $10^{-33,}$ and then…we have bifurcation and we have space and so on. And then at one point, and we shall see where is this exactly, at one point on connectivity curve, we obtain tau particle which is a forked structure like this one. At certain moment of…I don’t…of density, of number of non-denials, we have tau. And now if we have, if we take this number…

Y: It’s about 10^{19}.

B: 10^{19} but…

Y: That’s how many non-denials or arrows need to exist in order to get…expect one of these.

B: Yes, but I didn’t know that this is recursion; maybe this answers my question whether it should be improved. Maybe this recursion does the job because this is recursion.

Y: We'll need to study the recursions more.

B: I'll tell you because I lecture this. What is recursion? This is why I named my course 'self-reference.' Recursion is self-reference.

Y: (acknowledges)

B: I'll show it to you. It is pure beauty. This comes into picture. It is another quality to the mathematics of Lila Paradigm because it is brilliant. It is pure beauty. I'll tell you. I have it in my book and also in my lectures.

Y: I am smiling because I am amaze that you happen to know the very thing we need to know.

B: Pity I haven't got more time. Maybe I should have prepared what is alpha and so on, but never mind. So this is this first forked structure. And this is the probability for first tau particle to appear. And in order to find…and the other way…we must divide. And in order to take advantage of us knowing the ratio of rest mass which is measured, we take this number which is here clearly stated. The first forked structure appears when we have fifth root of five factorial N to five minus one. With this remark, I don't know why he has [I] plus one which should mean that this is sixth. With this remark…

Y: Not correct. I have checked all the numbers; and it's got to be five not six.

B: So in connectivity curve, maybe it should have been [I] not [I] plus one.

Y: I think that's…yes. And he and I discussed it.

B: Ah! You discussed this.

Y: Yes. And I had never really looked closely at this one. But there is no doubt; I showed you the equation here…

B: Yes, yes here is [I].

Y: It is [I].

B: Yes, I have seen, yes it is [I]. Although it does not change a lot, not changing a lot doesn't mean much in science. It should be precise because what it changes is maybe this curve will be a little bit to the left or a little bit to the right. This is the whole difference.

Y: It is the shape of the curve that is important.

B: Yes, the shape of the curve remains the same only it has shifted a little bit left or a little bit right.

Y: But it is [I] not [I] plus one.

B: It is [I]. OK. Great! So this is…it is clearly so because this is how the ratio of rest mass has been found.

Y: That's right…

B: And now this too you know.

Y: There it is.

B: We started to discuss but not finished. Is it because it is pair tau/anti-tau or what? But…

Y: I don't know the answer. I told you that.

B: Yes.

Y: Why do I divide by two?

B: Yes. Because in…

Y: I think it is because there is…the measurements that they make is of one particle. But the formula comes up…

B: For two particles.

Y: Two particles except in the case of the electron, it is not divided by two.

B: Yes, it is not.

Y: So I'm…

B: Yes, yes in form (there is dwa48:51?) two M of five over M of three.

Y: Yes.

B: This is electron/positron and this is tau/anti-tau.

Y: Yes. Now why the two is there, I don't know.

B: OK. We don't know maybe. Maybe because you…in order to have a pair tau/anti-tau…you need tau and anti-tau. And when we have positron/electron, we have just one arrangement having plus here minus here.

Y: Yes, that is how it is.

B: Yes, then maybe this is the answer. We have just one arrangement having both positron and electron included. And for tau/anti-tau, we need tau and anti-tau.

Y: Well, it is confuse…it's tau and anti-tau across the circuit.

B: The same as positron/electron.

Y: (acknowledges) But it is…

B: Then it is right…

Y: But it has more arrows.

B: It has more arrows, yes.

Y: More cross overs.

B: Yes, as I understood it is a fork. There are four of them.

Y: (acknowledges)

B: And so if we take into account this is N and this is N for…so this is for the tau/anti-tau. And for the electron/positron, we have third square root of three factorial N to three minus one which give us this formula. We have fifth degree of five factorial N to fourth over three degree… Third square root of three factorial. This is hundred and twenty. And this is six to N to square; or this is fifth square root of hundred and twenty N to fourth over third root of six N squared. And these two we should decide. And here there is two. This is multiplied by two. And when we do this and still we have the measured value, out of this N is obtained. And the value of N obtained this way is slightly different. And somewhere I have seen maybe here in this *Radical Theory*. These are the mistakes in *Radical Theory*. And here by doing this we obtain this. Aha! We obtain this. Ah, there is another point here; but maybe later on. I was thinking of it also tonight. I was looking in this. So in this way, we clearly have N depending on the measured value of the ratio of rest masses. And we obtain N.

Y: (acknowledges)

B: We obtain N. So out of this, we obtain N in second way. But this is still to be clarified whether these iterations, these recursions, solves the problem of mass being resistance to movement, and movement requires two appearances of tau, not just one but two, in order to have movement because movement is perception of space.

Y: I am willing to discuss that with you whenever you want.

B: OK.

Y: About recursion.

B: OK. Then about this formula; but maybe later on. This formula I was looking in Baker’s paper. He has probability for a non-physical individual not to be in state of knowledge of any other individual which is… He starts from the negative statement. He starts from…what is the probability for an individual not to be connected to any other individual. And this is out of N non-physical individuals, we have one which is not willing to relate to others. We have N minus one. And this spread out over all picture of N non-physical individuals. And when we have situations of Q non-denials in the over all arrangement, this is multiplied by Q. And this is how he finds the probability. If I divide this to this, I have one minus one over N. And this is for an arrangement of Q relations, not non-physical individuals but relations. The overall number of relations is Q. And the overall number of, the extant number, is Q. And N is the total number of non-physical individuals. And this is probability for a individual not to be in state of direct knowledge to any other individual. And if we want the probability for an individual to be in a state of direct knowledge of another non-physical individual in arrangement of Q non-denials is one minus this one because the total should be one. The total probability…

Y: The probability, yes.

B: So this is how he obtains this and I suspect… I was stressing several times this thirty seven maybe should…maybe has meaning because this is another point I came to this, this night. Another point is this curve denoting the connectivity which is the basis for many things if not for all. It is basis for all, actually, because connectivity is what gives the picture of arrangement, the extant, or what the situation of the universe, for instance, this is connectivity. So connectivity curve should be basis for everything. And so the other point I was making is this curve assembles (resembles?) a curve like this one. A curve like this one appears very frequently in electrical engineering because this is the voltage and so on and so on.

Y: The voltage of the charge on the capacitor.

B: Yes. But this resembles this curve. So this curve must have E into picture which is to be expected because this curve is obtained by structures leading to E.

Y: (acknowledges)

B: And this clearly here. This is clearly because if we have here, for instance, function F of T. This function F of T is a constance (constant). This constance (constant) might be one to be simpler. So we have K or one multiplied by one minus T minus E to minus constance (constant). Let it be one T. So this curve is F of T is one minus A to minus T. Now I find a tangent here in T equals zero. Tangent is D F of T D T. This is derivative of this one. Derivative of constant is zero. Derivative of minus E to minus T is E to minus T because we have minus and minus gives us plus. We have E to minus T. Further on. For T equals zero here. I have D F D T is E to minus one which is one over E and one over E is zero thirty-seven. This is thirty seven percent. So if I have taken K to be one.

Y: There is a Fibonacci number.

B: Ah, by the way, yes. Fibonacci it is. We have one, one, two, three, five, eight, thirteen, twenty one, thirty four, not thirty seven. I…

Y: Hummm!

B: Thirteen… Thirty-four, but never mind. So we have…and now we have in picture, we have 137 is appearing very often. 137 is one plus one over E. And this has something to do with this curve having likeness or assemblance (resemblance) with this curve. It might be correct. But clearly E is into picture. It is visible that this curve is constant. This constance (constant) might be one. One minus E to minus… This is E [I] and some constance (constant). This curve surely has E into it. And this is to be expected because E is included in connectivity. So this is, actually, when I put here…when I equalize, when I find for T equals K or for T equals one. For T equals one, actually. For T equals one here… For T equals one, I have E to minus one. And this leads me to this value. And this value is thirty seven percent of the whole…of one. This is one. This is thirty seven percent, this one. Also I have seen here. And now another point. And we might…at a certain point of time, we should go back to it where from this E to something came into picture. This is done for normalization. They do some sort of normalization by this. And this is visible here, actually, in one of the formulas where we saw that we have…maybe here, here. This is some sort of normalization. It is written here. It should be clarified. I have seen this formula. By the way, there is where they mentioned one thirty seven. It came from alpha.

Y: Yes. It is the inverse of alpha. And this Fibonacci number is a percentage… It is 61.8 is a Fibonacci; and you subtract that from one hundred.

B: Pardon me. Sixty?

Y: Sixty-one point 8. Subtract that from one hundred.

B: 38?

Y: It's 38.2. That's…this is a Fibonacci percentage. You were giving percentages so I gave you one. So it's thirty.

B: This is current of a square root of 5 something.

Y: Yes.

B: I have it, I have a whole presentation about Fi being this Fibonacci ratio. I have a whole presentation. This is connected with movement of the stars.

Y: It's not important.

B: Ok.

Y: Ok. Now what are you going to do?

B: There is another point now… I forget, it was another... Aha about spin, I want to ask you. Maybe we should come to this later. You differentiated, which you must… You have to do, between fermions and bosons, and you have definitions. And so you mentioned earlier today that we have boson when we have crossover. But what I read in this particle physics is that a what… The difference between bosons and fermions is that bosons is… is in their spin.

Y: Their what?

B: In their spin. The differentiation…

Y: Sar ping?

Bret: Spin.

B: Spin, spin.

Y: The spin.

B: Spin, spin, spin. The spin. Is it so.

Y: Well, that's how they discovered them, that doesn't mean that is all there is to know about them. That's how they discovered that there were two big spin behaviors. The bosons collect together, and the fermions stand separate. And so they have different spins. But...

B: Ah.

Y: But that's not the most important part about it, but they haven't discovered it all yet.

B: (acknowledge) But it might mean that when we have crossover meaning boson.

Y: Yes.

B: In your arrangement in Lila Paradigm…

Y: Yes.

B: Then it has something to do with the spin.

Y: With? Spin.

B: With the spin.

Y: Yes.

B: Or not?

Y: Yes, it’s because it’s across the circuit, and that combination across the circuit and the circuit gives it spin. I have in here by Bereniki (1:05:12). I told you about the German, the German physicist.

B: (acknowledge)

Y: He explains how that works. Spin. We’ll get to that in a few days.

B: Ok in a few days. But another question while I have it in my head. In one of the discussions of these sessions, you mentioned that spin of one half given to the fermion is just a name, it doesn’t have meaning to it. But in order to have… If we have two fermions, for instance, one going into this direction and the other going into this direction and they are described with one proxy wave, meaning with one Schrödinger's equation and when the collapse takes place, we might measure here a spin of one half…

Y: (acknowledge)

B: For one of the fermions but the others fermions should have spin of minus half in order the overall angle or spin moment to be zero.

Y: Yes.

B: So there is also meaning to it. It is not just a name; it should have more than just a name. Isn’t it so?

Y: I don’t think so but because you could label this *one* and this *one*.

B: And then I have boson.

Y: Still get…No. If you…

B: According…

Y: If you called this one plus one and minus one you get zero.

B: Yes, I know, yes.

Y: You could call this twenty-one and this minus twenty-one.

B: Ok, Ok, yes, maybe.

Y: But that’s not how they teach it, they teach it according to the history.

B: Yes.

Y: And the bosons come in whole numbers.

B: Yes. So later on we shall see what is the difference according to Lila between fermions and bosons.

Y: Well, I can make a guess that the bosons are alone whereas a crossover has two ends, the source end and the arrival end. So it has double whatever a fermion has. A fermion just has itself. One end. I think that's the basic difference in the Lila Paradigm. And I think that's what we are talking about here.

B: What is the arrangement of maybe later… Still…

Y: Here's a fermion and here's a fermion, it just counts as one. But the arrow has two ends, the departure end and the arrival end.

B: Yes.

Y: One, two, so it has twice as much if you call the fermion one half, then this becomes one. That's all. They are doing the same thing but they don't know about circuits, they don't know about relations. They are doing it all in terms of space and time, and mass and charge. So I am just saying it, that's how I see it.

B: About the recursion, shall I tell you now or later?

Y: You can say about your part about recursion. I will say mine tomorrow.

B: (acknowledge) Ok, ok, what I know and what I have in my book, maybe I shall bring it.

Y: You can bring it over. We don't read Macedonian.

B: Pictures.

Y: She agreed with me that Pi and E should (1:09:52) stop

Don: (acknowledge)

Bret: (acknowledge) they have to.

Y: If that's not true, the whole Lila Paradigm is wrong.

B: There is a way to find solution to a non-linear equation which is recursion. Which is fixed point actually…

Y: Sixth point?

B: Fixed, fixed, fixed.

Y: Fixed. Ah.

B: Fixed point. There is a theorem by Bannock (1:10:48). Bannock fixed point, which explains how to find solutions to non-linear problems. For instance, we have Y is cosine of X, or something. Y is F of T, and this F of T is non-linear and now in order to solve it, I could put Y minus cosine X equals zero and I could observe this to be another function F1 of T. So in order to solve this equation which is F1 of T equals zero. And it might not be possible, I present the function this way by two different functions. And I say the solution of this function is the same as the solution of Y equals cosine X. And if I put somehow, and it is always possible, Y to be X, Then I have X equals cosine X. And I have here two functions, Y equals X and here another function Y equals cosine X. And if I draw this Y equals X is this line here. One is one, two is two, three is three, minus one is minus one, minus two is minus two. So this is the input and the output is the same. Which will make recursion possible. Because when we have recursion always the output we put once again on the input. The output on the input. The output on the input.

Y: Just like we showed here. This one around, this one around again. Because the pattern of the circuit is the same. I'll talk about that tomorrow.

B: Ok great, because this explains why recursion is used. So we have here Y equals X, this is the curve. And we have the other function whatever it is, here it is cosine, we have the other function, which is cosine and then here they meet and this is the solution. Why this is the solution? Because when X… The function, the primordial function, which was F of T is X… I equalize this X and Y not to be confusing. We have X minus cosine X equals zero. So the solution F or T equals zero, which I am searching for is the same as X equals cosine X, because this is also zero. So if I want to find the solution for these equations, which might be impossible to do in another way I could always somehow add X, for instance, to this function or express it like two different functions one of which is X, then this F of T will be zero when X it cosine X. And this X to be cosine X, this means intersection of the function Y one equals X and this Y two equals cosine X. So I have one function, which is Y one equals X, and I have another function, which is Y-2 equals cosine X. And the intersection of these two functions is the solution of this equation. And here is where recursion takes place.

Y: Clever.

B: I have it here also. But this leads to chaos so let… It is complicated. So we have here Y equals X, and we have here another function, which could be any function, but in this case it is Y is cosine X. And we have intersection here. And now where is the recursion? We have here Y-1, Y-2 Ok. For instance, I start from a value. From an arbitrary value, and I find the exit or the output for this value which is Y-1 of X-1, this is this value. Now when I am doing recursions the point of recursions is to put output again as an input.

Y: (acknowledge)

B: But this angle is not good. It will lead to bifurcation. So to be more clear I'll do this way. This angle is very important, so I have X-1 here and I find Y-1 and now this Y-1, I put once again as an input because this is what recursion is, to put output as an input. So my next input, my second input… I have X-1 my X-2 will be Y-1. So my previous output will be input now. And now I have input and now I have… I found this point and I have Y-2. And now I take this second output as my next input and this is as if I go this, this, this. As my second input, I am trying to be precise, and then I found the third output, but now instead of putting this output as an input again, which is difficult, not difficult but it is more complicated I could just go to the… Go to this Y is X because this is the same. Y is X actually means the output is the same as input. The output is the input. So instead of taking this output and putting it as an input, I might as well (and this makes things easier) go to this curve, because this is the same thing. This is not precise; I am trying to be precise. This is Y equals X and we have this curve here. So I have X-1… I have… For X-1 I have output Y-1, for instance. We have first and then once we find the value, we put it once again here.

Y: Right.

B: And now for… Instead of going… Instead of putting this output here as an input again could go directly to the line. And then for this input… For this input, which is previous output, I find the new output, which is Y-2. And then once again I put this new output as an input here and I find the third output, which is Y-3. But this is like moving from... I start from the curve and I go to the line and again to the curve, and I go to the line and again to the curve and to the line and to the curve and to the line and to the curve and to the line and to the curve and to the line and to the curve. And so on and so on and this is this picture. And this how an iterative process I find the solution. By using this Y equals X. So I am moving… And this is where chaos might come into picture as so on and so on. There is a whole theory but the main thing is in this iterative process by… to find the solution of F of T is G-1 plus G-2 or minus G-2 equals zero instead of finding the solutions for F of T equals zero I might as well find the iterative process of G-1 equals G-2. And if I take G-1 to be X, I have X equals G-2 and X is this curve. So once I have this curve… Once I have this curve, it is very easy to find the solution. Because go to the curve, then to the line then, to the curve, then to the line, etc. and I find solution. Why? Because this is Y equals X. This means every output is input again, new output, a new output is input again, new output is input again, and so on and so on. And so by using this method almost every non-linear equation could be solved. Depending on this, there are some limitations, but generally many of them could be solved. Now to apply this to this. Maybe this answers my question. Why when making an attempt to find N by ratio of rest mass just one probability is taken into account? Maybe this answers the question because this is iteration process and iteration means…

Y: I don’t think they measure them accurately enough for that to show up. But it would constitute a prediction on our part. So that when they turn on the next accelerator at CERN, then the next number will show up for the mass. And if we predicted it correctly that would be a strong point.

B: Great. I was at CERN last year, I mentioned to you. And they said, for a new sub-atomic particle to be found in their computations, two years are needed. They are building this huge collider… I have been there.

Y: Billions of dollars.

B: Millions of dollars.

Y: Billions.

B: Two thousand people and fifteen years. And if you make here an intersection there are ten billions of electronic circuits…

Y: Yes.

B: Just is one intersection there are ten billions electronic circuits. This is unbelievable.

Y: Yes.

B: This is amazing.

Y: Six stories high. The detectors.

B: Yes. Amazing.

Y: Yes, they are amazing.

B: I could not believe. And they have been working fifteen years 2000 people. Now they are ready. Now they are put to some of the…

Y: Yes. Starting in Dec.

B: Aha. And they will obtain lot of lots of lots and lots of pictures and they have estimated that they need two years in order find something. In order to find a new particle.

Y. Or to increase the accuracy of a measurement of say, the tau/lepton, or the muon. Well, ok now we're going to use recursion in a similar way tomorrow. But we are going to use… And recurse time, and recurse space, and I'll show you how it works in the Lila Paradigm. Then you can tie that in with that. Because recursion is recursion it doesn't matter what it's about. Also I'll show you how… like she did in one place, it's not inaccurate it's just not drawn proportionally. And also I'll have some questions that you can help me with. So we will do that mañana. We have got a little time left, do you want to do a little Gödel?

B: Yes. The conclusion.

Y: We can finish Gödel today.

Bret: Is there a finite about of Gödel?

Y: Or is he incomplete?