## \#14

Formal talk-25102006 afternoon
Lila recording day 5, afternoon 2 post session
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13 min
Recording 14
B: P plus Tq and why exactly this is TP... because this is elementary time.
Something like that.
Y: Imaginary.
B: Imaginary, yes imaginary elementary and we suppose this is TP. And it happens to be correct according to good theory and...

Y: Acknowledges.
B: OK.
Bret: But why do we pick that if we are going to imagine anything that we want, why that?
:30
Y: Because the Lila theory says what time really is. It is two arrows in a row.
Bret: Yes.
Y: And I assumed that that was one Planck time. Then I divided it by the square root of 2 N .

B: Yes, great.
:55
Y: Which is the value for one arrow out of the two, so it's a probabilistic.
Bret: I understand that to be the reason why TQ is the size that it is, but I don't understand why the Tp plus Tq... What does that refer to?

B: I had the same question.
Bret: What does that refer to?
B: It's an assumption.
Y: What's (?)
Bret: Tp plus Tq.
$\mathrm{Y}: \mathrm{Tp}$ is Planck time. Tq is time quantum.
Bret: All right.

## 1:28

Y: It an imaginary amount of time, it never exists; it is just one element in the two arrow arrangements.

Bret: Ok. I accept that it...
Y: It does not fit physical reality.
1:53
Bret: I accept that it is an imaginary time, but where does it come up, why...where does it refer to?

B: I was thinking about this although...
Y: Because...
B: I do understand this is your assumption... It shows to be correct and...
Y: I plotted it to be things that people could relate to.
B: But this also shows that Planck knew more than we assumed he knew because his assumption is taking this paradigm.

Y: (acknowledges)
2:30
B: He knew more than we think he knew, you know, because this is Planck time which is great. Maybe knew something more. How did it come...? If we come to know... if we recognize what Planck did to estimate TP, it would be useful for Lila because we will know this. We will know this. This will not be just assumption; it will be more than assumption. You by your intuition which is great... you came up with this. But if we know why is this, then we maybe...

Y: Well, I can tell you how I did it. I worked backwards from this. And worked backwards that's in fact how it happened. I believe you should work with the assumptions and measurement both.

B: Yes, yes.
3:39
Y: Then you go like this, and they miss. So you make an adjustment and you miss on the other side. And you do it again until your curve fits until it matches. Then you think and you ponder what am I missing in here? And then you come up with something.

## B: Great.

Y: And it all works out on something else that is unrelated. And you say it must be on the right track.
4:00
B: Then Planck came up with this with measurement actually, isn't that so?
Y: Planck?

B: Planck because this time Planck.
Y: Yes.
B: Planck time. So we should know whether he obtained this by measurement or he had some differing insight.

Y: It was measurement.
$B$ : If it is measurement, then end of the story.
4:27
Y: It is all measurement, all the Planck time. Published in a journal... This is T'Hooft's paper.

B: Because you know then... Now I am thinking if you make another assumption, then your curve might have been the same as Guth's curve.
4:57
Y: Well, I think if he made another assumption, then his would have matched mine because his is wrong so wrong that they... years later they came out with this one. It's wrong too; and ever since then they shut up and they are not saying anything. Here are all the formulas for the Planck, this and the Planck that. See those?

B: Yes.
Y : These are the fundamental constants.
B: Yes, yes, this is Planck's constant.
5:30
T: And here's the... Big G is the Newton's gravitational constant. H bar is Planck's constant divided by pi over 2, C is the speed of light. And those are what are used to get the Planck mass, the Planck length, the Planck time. And those are all measured.

B: Yes, yes, yes. But there is something elementary. This speaks highly of Planck, I mean.
6:24
Y: He was a genius. Planck when he discovered a solution to the ultraviolet catastrophe, he spent three weeks, night and day, Christmas holiday. When he raised his head, he knew he had it. It changed the world.

B: Great.
6:56
Y: Because all of quantum (physics) follows from that. Most people give Einstein the credit for the photoelectric effect. But it was Planck that worked out the initial concept of quantized energy although he thought it was just a mathematical device. He didn't know that it had a physical reality.

B: Then it is not measurement, Planck's time? Then Planck's time is not obtained by measurement.

## 7:23

Y: Yes, it is. There is a measurement for it. He thought that it wasn't real. But it turns out that it is real. In that case you would have to go to Israel. They say old men and yogi's make puns. You know puns?
$B$ : Ah, puns.
Y : A pun is a play on words. To play with words?
B: Yes.
Y: When you say one thing, and it has two meanings.
B: Yes.
Y: Old men and yogi's play with words just for the fun of it because they have nothing else to do.
8:19
That was the one I gave you and you left it here.
B: Shall I take it.
Y: So I re-filed it because I thought...
Punita: I am still recording.
Y: You take it and put your name on it. Or staple it together or whatever you want, but don't leave it laying around.

Bret: Yes, the resolution is perceived...
8:38
Y: How do we know there is electric charge? There isn't any electric charge. All we know is that we see something move, and that...

## B: Causes.

Y : The two lengths give you two different positions which is the same thing as motion over time.
8:59
Bret: Right then, you said that when you had two crossovers, all of the individuals suddenly had a charge on the monopole. I don't understand that.

Y: Well, I got that. And we will try to deal with it tomorrow because the clock has run out.

