

#10

Formal talk-25102006 Pre morning day5
Lila recording day 5, morning Pre session

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7 min

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B: of moving of the car is fragmented into small pieces of the line.

Y: Acknowledges.

B: So this is why he says...

Y: It's Greek.

B: So this is why he says this infinitesimally small pieces (segments)... Penrose in his article "*Road to Reality*" He is taking them...

Y: (?).

B: could close. He is taking these infinitesimally (small) pieces (segments) as integers in a way.

Y: Acknowledges.

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B: So we have broken the whole trajectory into small pieces (segments).

Y: This is in the right direction for the *Lila Paradigm*.

B: Then it will be great. And then for every piece (segment) we transform the whole picture including the Hamiltonian, but not the Hamiltonian in sense of graph theory, in the sense of Lila Paradigm. Although in Lila we might need to discover Hamiltonian also. But there is another Hamiltonian which is connected with optimization of movement.

[1:14](#)

For instance, if a tiger is running we could optimize the speed of his run or we could optimize the energy. For instance, he might go faster but then he spends a lot of energy or he might run slower but then he spares (saves) energy. So this is connected with the Hamiltonian. I found some where these days, either here or in another article, I believe here Hamiltonians... they have differentials in (en?) and so a Hamiltonian is a structure which optimizes a parameter. For instance, energy or velocity.

[2:09](#)

So here the trajectory... In order to find the trajectory Hamiltonian should be introduced into the picture. Then little pieces of this trajectory are being observed by transforming them with Lie algebra into another realm. And I'll tell you about (these) realms also (later). They are solved there in this other realm... Like complex numbers are doing for the waves and then they are brought again into the realm of

the trajectories. And then piece by piece, by piece by piece, the whole trajectory has been found.

2:57

So although the inspection of these equations shows that this is not so, at one level the theorem of existence and uniqueness fails. Still there is a solution, we all know the car could be parked but then trajectory goes something like... You go this and this, you go backwards then you go like this. You go like this and then like this. And this is solved by Lie algebra.

3:32

Bret: Is this solution considered approximate, a practical solution or is it a general solution a complete description?

B: It is used in cases when we have discrepancy in topology. When we have discrepancy of the trajectory (of the topology of the trajectory). The trajectory is of one dimension, because when running the car we have just location in translation and the surroundings, which is two dimensional. The parking lot is two dimensional, and because this is one dimensional and this is two dimensional all the known method for solving nonlinear systems fail.

4:23

It will show the known methods we will show that the problem has either infinite solutions or no solution at all. The existence and uniqueness have failed.

Y: But that doesn't answer his question. Is it complete or is it an approximation?

B: It solves the problem if you want to park the car. The car will...

Y: I got that.

B: These are approximate in a sense.

4:52

Bret: Yesterday you showed us another system were you showed us a method where you drew a line $Y = X$ and a top of a parabola and showed how it zeroed in on the solution.

B: Help out I don't remember.

Bret: I don't remember the name of what it was. Let me draw you a quick picture and it will remind you of what it was you were showing us.

5:14

B: It is approximate to answer your question. It is approximate.

Y: I would think it depends on how long the discrete units are.

B: Ah yes.

Y: Depends on how large these small digital units are.

B: It depends on you...

Y: If they are small enough that they are smaller than the elements of the problem then it would be exact.

5:46

Bret: Hum.

B: It would be what?

Y: Exact.

Bret: This solution finds...

B: Ah exact, Yes I understand.

5:52

Bret: If you go to infinite iterations with this process you will find an exact solution. My question is do you have to go to infinitesimal segments in order to find an exact solution?

Y: No I don't agree. You just need to go as small as the smallest element of the problem of the situation.

Bret: If the situation itself is discrete and not continuous.

6:15

Y: Well, that is what I am saying.

Bret: In Lila...

Y: In the Lila Paradigm then it should be able to be exact. OK we agree OK. Now she has to finish it.

Y: Now, good. Do you want to plug this in or not before we start? It's up to you.

B. I'll plug it in later, just thank you.

Y. Now we start for.....