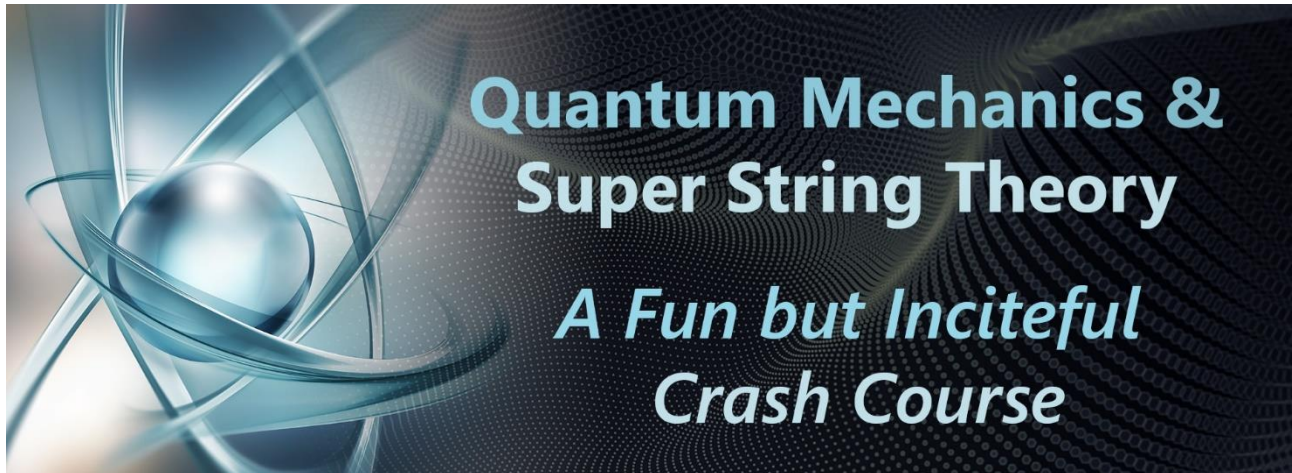


Quantum Mechanics & Super String Theory

A Fun but Inciteful Crash Course

16.14_Quantum-Mechanics-and-String-Theory_A-Fun-but-Inciteful-Crash-Course_(Feb_10_2023)

By Nick Ray Ball – Friday – 18:08 – London Time – February 10, 2023



Originally part 4 of a five-part series as part of https://www.s-web.org/Business_Plan--Q1_2023.php to come at the begging of the presentation.

Note to self! — with a 'Send To' list like that, I had better say something clever and quick!
But **cleverness is overrated, cleverness explained simply enough to be widely understood is not**. So, the following...

But please for any specialists reading, do please send corrections.

Inside the atom are neutrons and protons (or in hydrogen just one of each) with electrons orbiting them.

Inside each neutron and proton are three quarks, (*in different varieties*)

But that is, some say, only a theory because as soon as you smash a neutron and proton apart, the quarks disappear.

But there is a load of other evince that suggests they are there. In part, it is called The Standard Model.

So in theory or fact?

There is a force, called The Strong Force,

(The other 3 forces are electromagnetism which gives us electricity (and magnets). There is a weaker nuclear force, and we all know Newton's and later Einstein's force called gravity (similar but different, but feels the same, no matter which version you feel.)

The Strong Force, (via subsystems of the standard model) has been shown to have symmetry with the weaker nuclear force and electromagnetic forces, but not gravity.

So, string theory is, both:

1. A beautifully hard theory about how gravity has symmetry with the other three forces.
(symmetry example — like you see a snowflake looks the same when rotating it)
Or.
2. A line of research into the strong force and the three quarks that live inside the neutrons and protons in the middle of atoms, but disappear when let out.

But, as theoretical physicists know, both the above are the same thing.

(Please dear theoretical physicists - if I got any of that wrong, please correct it and send me the correction)

Another way to consider string theory is like a translator, say you had a language, let us say English, and you had an absolutely perfect translator, and I mean perfect, not open to different interpreter's bias, all would agree — that

would be useful right?

So string theory is (like) a translator between good old gravity and quantum mechanics. (QM)

What the f'@@k is Quantum Mechanics?

Ok, so we know gravity, **and now you know quantum mechanics, just by reading so far, because that is what have we been talking about!**

The mechanics (the quarks and forces and stuff) that are within an atom.

Or you could also say, quantum theory — same thing, or more loosely you can also say particle physics as Lisa Marie Schneider prefers, or nuclear physics the way, Michio Kaku sometimes describes it.

It is all based on quantum mechanics.

The stuff that goes on inside the atoms. (inside the nucleus of the atom for nuclear physics and the stuff that goes on inside of particles of light for example (photons), for particle physics.

And so,

3. String theory is an idea/theory of a universal translator, but instead of Chinese and English, it attempts to make a perfect translation of gravity and quantum mechanics (the stuff going on inside

atoms/particles)

The rude guy at Charmain's Birthday

(London – Summer – 2012)

A very rude guy (*a recruiter by profession*) once said to me, when I did not know much about it — “yeah but it's just a theory — Right!” (a slur of a statement, not a question)

He was rude because he just wanted to shut me up so he could chat with a girl who was paying more attention to me than him.

(It happens, not that often, but it happens)

But I knew so little, it was before I started *American Butterfly 2012 The Theory of Every Business* [Parts 2](#) and [3](#) (*inspired by quantum and then string theory*) and I was just enjoying it, so at that time, I had no answer.

So, here is my answer asshole.

All of the above — plus — well no one thinks gravity is a theory, and **quantum theory** (quantum mechanics) **is the theory that has been tested more than any other theory in all of science and it has always been right.**

Not my words – Steven F@@king Hawking asshole.

By the way, that little thing we call digital, yeah, that's the theory, and if you're reading this online, then you are using

quantum theory a trillion times over.

And so, string theory is mostly pure mathematical research into the theory that everyone agrees with — gravity!

And the discipline — of quantum mechanics that gives us the computer, cell phones, lasers, and even those old 1980s digital watches. Every digital device used, is another proof that quantum theory was right. If quantum mechanics broke down we would be back in the 1920s.

Sure, tomorrow it may all end and everything may fail, the entire universe that is, (or yes multiverse, but let's not go there in this session, but do look at M-Systems on www.angeltheory.org)

But so far the quantum theory or quantum mechanics QM — has been tested more than any other theory in science and has always been right, as Hawking presents in his book *The Grand Design*.

So a theory based on the most known theory — gravity and the most tested theory quantum theory.

Is NOT JUST A THEORY, asshole, go find your own girl!

LQG is easy (well easier)

Ok, now I got that off my chest, as I said, I cannot say I know much about string theory, even today, its mechanics are hard. I mean really hard; you have to know as much about relativity (gravity) as you do quantum mechanics.

But I can say I know enough LQG to hold very long conversations with its principle theorists, I look forward in particular to speaking about abstract economic theory based on LQG with Carlo Rovelli, not that its easy, per se, but compared to string theory it's a cakewalk.

LQG is Loop Quantum Gravity, from the same origins as string theory.

But different, you may have heard the argument between Sheldon and Leonard's sex-only physicist girlfriend Lesly in The Big Bang Theory.

www.youtube.com/watch?v=FMSmJCKaaC0

Of course, at the time, I was really mad at her, for liking this LQG thing, what was that?

But now, I'm not so sure, LQG is at its core basic, and very simple, and whilst nowhere near as attractive, (*String Theory is a cosmic symphony*), LQG sure is easier to work with.

If you know just enough QM to get by, but that would apply either way, **string theory and LQG are both quantum theories of gravity.**

And in a way, the theory of everything, (that's what they call it in physics) is just as perplexing — and to me extremely similar to macro and microeconomics — that's the mom-and-pop store at the end of the street and the

global financial and economic systems

For example, very simply with just a few YouTube videos from string theory, I had [some ideas about symmetry and city-sized networks in Florida](#) from 2012

But from LQG in 2021/22, Woah!

ASI — Artificial Superintelligence

Well to be correct HA-ASI — Human-Assisted Artificial Superintelligence

And it would turn out, physics was just a basic requirement of a truly macro-end macroeconomic theory. Like the higher technologies. T7 and T8 (and T9)

For more, see

https://www.s-world.org/Life_2.9.php

https://www.s-world.org/Dreamscape_LQG.php

[https://www.s-world.org/\\$1039 Trillion BASIC.php](https://www.s-world.org/$1039_Trillion_BASIC.php)

<https://www.s-world.org/Multiverse.php>

and just for fun

<https://www.s-world.org/Palantir.php>

End of session.

But it did continue in — t10t_The-Relational-Formulation-of-QM_Introducing-T5-LQG-Dreamscape

And see [https://nickrayball.com/#6 S-World-AGI Books](https://nickrayball.com/#6_S-World-AGI_Books)

for over 5 million words on micro and macroeconomic technology (S-World AGI) inspired by Quantum Gravity.

Originally part 4 of a five-part series as part of https://www.s-web.org/Business_Plan--Q1_2023.php

By **Nick Ray Ball** – 17.53 – London Time – January 8th, 2023

1. 15.14__Sequel-1a__The_SantaBarbaraVillas.com_Plan__(Jan_07_2022)
2. 15.15__Sequel-1b__CapeVillas.com_2000-to-2010__(Jan_07_2022)
3. 15.16__Sequel-1c__The-Filaho-Project__(Jan_07_2022)
4. 15.17__Sequel-1d__Say-something-clever__Keep-it-simple__(About-QM-and-SuSy-in-economics)__(Jan_07_2022)
5. 15.18__Sequel-1e__t10t__The-Relational-Formulation-of-QM__Introducing-T5-LQG-Dreamscape__(Jan_08_2022)

Originally titled: **Say Something Clever for The AGI Crowd**. But keep it accessible to all.

S - W O R L D A I TM B Y **N i c k R a y B a l l**
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Websites:

www.S-World.org (+ 12 others) (2021 2023)

www.CapeVillas.com (+19 others) (2000 to 2023)

www.AmericanButterfly.org (2012)

www.AngelTheory.org (2017)

www.Supereconomics.ai (2021)