Scripture, Physics, and Engineering

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[0:00] Okay, my talk, last time I talked, I focused on science, and particularly physics, and in the talk I expressed the need for humility, since absolute proof of truth is really challenging.

Today I want to talk from an engineering perspective. In my working career, I have been doing what would be described as engineering, and I want to share three areas that are dear to me.
Systems engineering, process control engineering, and communications engineering. Don't get scared, we're not going to spend hours and hours on these fields, they're very big fields, and lots of stuff is going on there, and I'm just going to highlight some things that I think are of interest.
Having done that, I want to talk about the nature of God, as we see from scripture, and then it goes on on the next page here, and then I want to talk about the nature of the Bible. That's hardly a small topic, but we're going to go through quite lightly, and then a wrap-up, of course.
And hopefully before I have to go to the choir break. Okay, an engineering perspective. Let's stand back a little bit.
[1:14] The scripture reminds us of a couple of things that I think are really helpful. Psalm 19.1, the heavens declare the glory of God, and the firmament showeth his handwork. I love that one, and it goes on with other good stuff that we'll get on later.

In Romans 1.20, for the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power in Godhead, so that they are without excuse.
The scripture here reminds us that we can see God in everything around us. That's macroscopically, and within us, microscopically. And we're without excuse in not believing.
I want to illustrate that engineers are without excuse in not believing, and I want to look at two of the different fields to make that point. So I'm going to start off with what we call system designer, programmer.
The broad topic is software engineering. Now, what does a programmer make? He makes software. That's the product. What's the characteristic of software?
[2:22] Well, it has some curious characteristics. It has no maths. It's pure information. You can't put your hands on the software. It's actually a copy of it. It's a listing, or it's a disk, or it's something that you can't actually grasp it because it's pure information.

And interestingly enough, information, you can duplicate it really easily, transmit it easily, et cetera, et cetera. But you actually can't physically grab it. It also has a use.
Now, I'm stretching this point because many of us will say it's up to those useless computer games, as I've often heard it out to my sons. But software does have a use. From my perspective, I have to do this for my kids because they always think everything is...
I always prefer to everything to put paper in the street, which I work in. It's used to make paper, amongst other things. It's used to make a lot of things. We use software. So it's useful. It has no mass.
It's pure information. Okay, let's stand back a bit and look at an area that I have not much expertise at all. And we're going to talk about genetic code. Very briefly, so if you're building up good questions and in-depth questions on this, I'm going to duck when you ask.
[3:34] Just to warn you, okay? Here we're talking about the genetic code, the DNA inside the various cells. It has no mass and it's pure information.

It's used to make all life. I think you can hope you'll see where I'm going here. It looks like the other stuff, all right? A little bit more about it. The hardware that the genetic code works in is not silicon chips, etc. and that.

It's the DNA within it and it's four amino acids that are arranged in various patterns. One of the things I think fascinating about this is that the DNA strands within a cell, which is less than a millimeter, are...
Stretch them out. They're supposed to be from about one to three meters, so I've read. Stretch them out. Now, the amazing thing about the DNA strands is they come together, they come apart for reproduction, and they're all coiled up tightly, but they don't tie into knots.
Now, I don't know about any of you who either do fishing or work with lots of wires and stuff like that, but any time I work with wires, you put them in a bag, you take them out, and they're all tied together. They tie themselves in a bag when you put them in a bag.
[4:44] I'm astounded that this can work. Your cellular system is truly amazing why it should ever work. Now, what I try to point out here, there's a...

This looks like code. But we're going to hit a couple of really serious differences between what the programmer does and what the... And what's in the genetic code.
Now, I've got a question to ask everybody. How many people have written a program in their life? Now, it doesn't have to be an assembler language program, although that's really good stuff, you know. That's why I started. But it could be a high-level program.
It could even be a macro in, say, Word or Excel. How many have done this? Okay. All right. Well, we're about 30%. Well, how many did it write the first time?
Okay. All right. How many spent a huge amount of time doing it? Much more than they ever think they would. It takes a lot of time, man.
[5:41] So nobody got it right the first time. It's a challenge. Well, I think there's a real big difference here between the genetic code and human coding. But it looks... Some of the properties are similar.

But now, this is where I may get into a topic that I'm happy to talk about, but it's not part of my real discussion. This is just a little aside because it's talking about the question of how we develop code. We evolve it. It evolves. We start with a little module to write it, and we get it debugged. We might send... We might ship it off to a customer to debug it for us. That's what Microsoft does, as you well know. Have you ever installed software that didn't work the first time?
Okay. All right. Okay. So you send out... So you debug it. And it gets better and better. And then you have a new version, an evolution. You know, your version 4.3 and then 4.4, you know, and et cetera, et cetera.
It evolves. It seems to me the genetic code is going the other way. It's actually... It seems to be, from what I can understand, the only way I see it moving is downhill.
[6:40] When you talk about corruption, et cetera, and, you know, chemicals that are affecting the genes, it seems to be getting worse. I think it's... My opinion is it started perfectly. It didn't have to evolve.

Now, that's why I disagree with the evolutionists, because I think God created it perfectly. But that's not part of my talk, so I can't ask any questions about it. You can, because I've got to talk about it afterwards. Anyway, the neat thing about genetic code is it's redundant and error correcting.
It corrects the errors if it can. Now, if it can, it's been too badly corrupted. The error doesn't get corrected, and that's where we get genetic mutations. So my whole point of this is if software engineers knows how hard it is to create his own code, how can they imagine there's not a designer, a creator of the code of the genetic world?
That's my argument. I think software engineers are without excuse. Now, that doesn't mean we can't ignore the truth, because, my goodness, the people who saw Jesus being miracles didn't all believe him.
So, I'm just pointing out this one area is very interesting. Okay, I'm going to move on to control systems. Because, all right, stop rolling here.
[7:46] I stayed with that. Because I was like talking about control systems, because that's what I do as, I started off software development, and I moved into process control. Process control, when we talk about industrial processes, they are one of the key factors, one of the key methods of making them do the job you want to do it, is to control it.

You make measurements on the process, and you make adjustments as the process is being made. And there's several kinds of devices you use to do this.

So I'm going to actually talk about several of them. The most simple things in process control is, or simple things that are, I'm getting in trouble with that. Open loop measurements.
This is a pressure transmitter. You would find it in a pipe, say a pipe that has steam in it, or could have water in it, or could have chemicals, or whatever is being made in the process.
You know, so a pulp and paper, it would have water and fiber, and if that's a chemical, it will have the hydrocarbons in it. This is a go-move. You measure, you look and say, oh yeah, it's between, well, this is right, that's zero, it's disconnected, but it goes on the pipe that may be running between here and here.
[8:55] You say, you look at it, say, is that the right place, the place it's supposed to be? If it isn't, I've got to do something, right? That's a very simple method, and we've used these for many, many years, and there's been a lot of development in these kind of measurements for pressure, temperature, pH, composition, etc.

The list of measuring devices is tremendous. Getting more complicated, we move into what are called closed-loop feedback control. Now, these are, these happen to be my company, so I can put them up here with a good palm loop.
My company's called Emerson. If you ever want a system, I can tell you. These are the, these are transmitters. They're like the measuring devices, except you don't have a dial on them, because what they do, they measure a pressure or a temperature or flow, and they send out an electronic signal, which represents it, so it's proportional to that signal.
It goes over to what's called a controller, which is a bunch of little microcomputers, all here, a whole bunch of them in the air, that does some calculations, which then send a signal out to what are valves.
This is a valve that throttles the flow. Presumably, this is mounted in the same type that this is, and this would be, say, this is a pressure transmitter. This would be, the valve would be moved to just the pressure.
[10:10] What the closed-loop feedback control does, it makes a measurement, sees if that measurement is what it wants it to be. The computer checks to see, is it where I want it to be at?

Is it at its set point? And if not, I move the valve to make that pressure change. And it's a continuous operation, and it's one that you've described with a linear differential equation, which is always a good fun sum of it.
But this is how it works. There's a lot of science behind this. The simplest form of the control system that you will all recognize is your furnace. Your furnace has a transmitter.
It's not very clever. It only has two bits of information. It's either temperature is high or temperature is low. It's really kind of dumb. This, of course, has many thousands of different bits of resolution. It's measuring to the tenth of the degree, etc. Your furnace says the temperature is high, it turns it on. It doesn't work like this. This is a throttling valve. It slams the furnace fully on, and when it's done, it turns the furnace fully off.
[11:10] But on continuous processes, you can't do that. You're making good quality stuff. You have to throttle them carefully, and so you adjust the valve to make the flows very constant, pressure is very constant, etc.

It's a big uniform product. Okay. A lot of stuff has been done in this area. Lots of work. And I spent most of my, well, I guess not half of my, over half of my work career in this area, and I'm doing this at present.
A lot of things happening here. But we'll move on a little bit further. This is not fun. This is a picture of a large control system with many, many, many closed-loop feedback controls, but also capability of doing what's called adaptive closed-loop control.
Adaptive control means that I change the way I do my control. So when I'm starting on my process, I may run it differently than when I'm actually up at full speed. When I make a grade change or something, I may run it differently.
So the control, the feedback controller, has to change the way it works. It adapts to the process. Huge amount of research has been done over the years, and this is, and it's still continuing. How to do better and better adaptive control.
[12:11] We, as always in any part of life, you call it advanced control these days, even though every year you call it advanced control, it gets more advanced, so the book you called it advanced control last year was now no longer.

It's retarded or something. But we call it advanced control. This is the state of the art that we're really at. There's some more enhancements you might consider.
So far we've done quite well with these three guys. However, there's some other ones that we might want to consider, and that is self-diagnostic systems. We've done some progress, but not very much.
Sure, our computers have a self-diagnostic system. The temperature gets too hot? It'll tell you that, usually. I mean, I don't know if your computer does, but mine has, and the temperature gets too hot. But it doesn't do a huge amount of diagnostic.
There's a power-on cell test when you turn your computer on. But the number of times I've had computer problems that the tests don't find, the diagnostics are pretty inferior. There are self-protecting systems.
[13:15] Well, a self-protecting system would be, in fact, computer systems often have this. When the temperature does get too hot, it tells you, but then if you do nothing about it, it will shut itself down. It will turn itself off. But that's pretty trivial. It doesn't, can't do really much protection.

It certainly doesn't do very much protection against viruses, etc. As you know, we have to do a lot of work to try to keep viruses out of our system. We do some of it. Self-correcting systems. These are getting really difficult.
So I've got a problem. I can fix the problem. Now, sometimes you can. There's redundancy that are sometimes built in. Usually, it's by making, if I have a crucial application, I will use three computers, and they'll vote on the decision.
And if one of them is not working properly, they'll shut it down. Right? You know, that kind of thing. But individually, computers don't correct well. Control systems don't correct well. Find yourself reproducing.
Now, as much as we'd like to achieve this, I've tried. I've put two valves in the cupboard and hoped that I get a little tap coming out at the end. You know? You know? We don't do a good job of that. Okay.
[14:16] Well, I think you can guess where I'm going. We're going to talk about biological systems. What do we have? Well, we have open-loop measurements. We know when we're feeling hot or cold, et cetera, we can tell that.

We have closed-loop feedback systems. Well, that's actually our temperature and our blood pressure are perfect examples of closed-loop feedback systems. Adaptive patrol? Well, actually, after you put it under your temperature, is, most of you are probably fairly comfortable now, but after a while, sun meeting in, you're going to start to sweat.
Well, men will, anyway. And you'll start to sweat. Your body will go into a different mode to try to keep your temperature down. That's adapting to the environment. So, so we, our biological systems do a great job.
Self-diagnostic. Now, huh, well, we're really good at self-diagnostic, at least. The older we get, the more time I spend talking about my ailments. So, I mean, I know I'm good at self-diagnostic. Aren't we, Bill? That's the first order of discussion or Bible study, is all the ailments, you know. I know I'm good at self-diagnostic. I know I'm good at self-diagnostic. So, remember, that's, that's true. That's true.
[15:20] Self-protecting system. Well, the most obvious thing is, self-protecting system, try to poke somebody in the eye. Well, there's two levels of protection. One, they'll blame you, and the two, they may bop you in the nose. And self-protection, right?

You may also find it at a cellular level for the antibodies. They are protecting the cells, the body. So, self-correcting, well, that's a great one.
That's, that's the, that's the healing system, you know, which is wonderful. I encountered a, a metal pipe in an industrial accident very seriously that nearly took up my ear, and it's self-healed, although I'm conveniently deaf when I don't want to hear people talking.
But, our body is just self-healing. So, that, that's what I have to do at the cellular level. At the human level, I don't need a, a self, a self-correcting, I have four external correcting systems.
My four kids. They always have one in my ear, so, I'm, I'm sure we can think of one, an example of, at the larger level. Self-reproducing. Well, although I'm qualified in this area on the, on the large scale, which I, I don't intend to talk about it, I've got four kids.
[16:28] At the cellular level, the cells reproduce themselves. They don't, they don't have to be told, they don't have to be given instructions, they just do it. Okay. What we can see comparatively,

sorry, did I go finish?

I think it was a month off. I can, I'm sorry. So, what we can see in both fields, we see evidence that you have to really work very hard not to see the finger of God in these things.
so much superior is, is the cellular systems. The simplest, the simple cell, as they call it, to anything that we have done so far. That, that, one has to stand back to, this is truly amazing.
This is, this is obviously the evidence of God. Anyway, I, I leave it with you as, as something to, to ponder. I want to move into a different area called communications engineering.
See, there's a whole science of how you communicate between two systems or two sets of people or two people, right? I don't, I don't want to deal with the human thing. That's always a difficult one.
[17:34] Because men are always bad at communicating as I'm, I'm not going to go. Okay. And I know I am. I'm right now. So, that's right. Because we run out of words.

Isn't that true? Don't we run out of words? I understand that it's supposed to be the case. At least I use that as, I claim that as, I run out, I use the ball in words so I can't, I don't talk to me. Oh, anyway, we want to talk about how to do communication between two systems.
Several things you want to think about. One is security. You want to make sure it goes to the right person. Sorry, it's available as the person you want it to go to and not everybody can send it.
In other words, you don't want to do a broadcast all when you're sending your email, a private email to somebody that says something you really don't want to be broadcasting and you accidentally hit the wrong button and sends everybody in the company and all those kind of you don't want to do that.
You want to have security and get to the right person. You want redundancy. Why do you have redundancy? It's so, so that you can be sure it gets uncorrupted to the, to the, to the, the recipient.
[18:38] You know, you may send it different formats and that's so that you can be sure that if it gets garbled, you can throw the garbled part out of it and you can actually understand the message and apply the stuff that's out so clearly.

And finally, you want authentication. You want to know who sent it. It wasn't just some, some guy in a trailer in, in, in Stanley Park where, who sent out an email and makes it sound like he's a, you know, your best buddy.
I know, you want to know who the person is who's sending it. So, dedication is really important.
Now, that's all I'm going to say for now. We're going to come back to them as we go through my, my ongoing discussions which are, I'm going to talk now about the nature of God.
From an interview perspective, I don't want to get into, stick my neck up in this, this auspicious audience here. Okay, but I will start off, I want to, I want to talk about the nature of God.
Where do we, where do we go? I'm going to suggest why not go to the Bible and where do we start? Why do we start with the first verse of the Bible? Which is probably, to my mind, the most profound verse in the Bible and we can argue about that but the reason I think it's profound is that it will come up shortly here.
[19:44] In the beginning, God created the heaven and the earth. Well, what do we learn about that? There are major things we learn. There was a beginning of everything. That God created matter, God created space, God created time.

I used to struggle with that time bit because I said, well, okay, I heard in the beginning but what happened just before that? What was going on before when I was a kid? It used to really bother me but now I realize if time, if it was a beginning, He created it.
So, major points that are really crucial for the ongoing discussion He created. But it's matter, space, and time.
Well, can we conclude? Well, Genesis 1-1 is in agreement with modern cosmological theories. Actually, it's quite the opposite. Modern cosmological theories, the Big Bang Theory, is in agreement with Genesis 1-1.
Right? Okay? I'm not suggesting Genesis 1-1 is a science text but I think, hey, when you check with the cosmologists, they agree with that in person scripture.
[20:52] No matter if you got it and did it, they may have some accidental starting mechanism that is really a step of faith but anyway. Okay. My claim here that this means that God is outside of time and space.

He created it. He can't be forced inside it. Now, He can be inside it. He wants to. So, if you build a dollhouse or something, you can create it but you're not part of that creation.

Now, you can get inside of the dollhouse. Well, maybe He can't. You get the idea. Anyway. Okay. Okay.
What's it mean to be outside of time and space? Well, I want to point out that doesn't mean you're, you know, it really means you're not constrained by time or space. It doesn't mean that he can't get inside but he's out there.
Well, this is kind of a hard concept. I just want an aside to remind you that time and space are actually the same kind of material as Einstein pointed out.
[21:53] Time is actually just a fourth dimension and special and general relativity demonstrated that to us which I don't intend to do to you by the way but I'm just mentioning that in passing.

So, we live in a four-dimensional world but for the sake of understanding for the rest of this talk I don't want to keep considering time and dimension. We're going to observe time as we see things happening here.
We'll consider it a three-dimensional world from the time being. Okay, it is reasonable to assume that God exists in a greater dimensionality or even outside that.
He's not restricted to live within his creation. What would a world look like that has more than four dimensions? Let's start with three dimensions of space.
Take a time for a moment. If we have space, what would it look like to be outside of a fourth dimension? Well, can anybody picture this? Are there any pure mathematicians here that they could picture that?
[22:53] No pure mathematicians. Okay. But all them pure mathematicians are already. Okay. It's hard to picture. So, we're going to make it easy. We're going to go to a two-dimensional world ignoring the dimension of time and see what it's like.

And it's called Flatland. It was developed by a book written by Edward Abbott in the last century. And what he did, he talked about the land. This is Flatland.
And we had character people on it that moved around. So, just like this. So, this is their two dimensions. All right? They don't have height. In fact, this is from his book.
This is him. I made him a red spray so you could see him. This is his sons. Apparently, when you have a son, you get an extra angle. And so, they're pentagons and grandsons are hexagons.
The curious thing about it, the women are straight lines. Now, which is great for the diet. But the other thing is, the women had the additional power that when they pointed at you you couldn't see them.
[24:03] Now, that's kind of a side. However, there has been a movie developed and it's called Flatland. We're going to, it's just done this year. It's a movie I've been slightly changed and you'll see in a moment.

We're going to look at a few scenes from it which illustrate the issue of two dimensions. Oh, actually, zero, one, two, and three dimensions. So, here we go.
So, give me 20 seconds here to try to get this thing started. Let's have this way, excuse me.
How many? Next? Hello? Hello? Anyone there? Me? Hello? Hello?
Hello? Hello me, hello me, hello me. Yes, sir, over here. Over here. Why, here be pointless. Me be king of pointless.
[25:17] My own infinite universe of zero dimensions. Zero king. Ha ha ha. Zero king. Me be king. Me be king. Me be king. Me be king.

Me be king. Me be king. Oh, no. Oh, no. Two. What funny, sir, is where it makes up. Two me. Me too. Me me me. Me me me.
Ha ha ha ha. Holy creature. Me me me. Me me me. Me me me. Me me. Me. My queen of the left. My queen of the right. Let's hear it.
Come on, hit me. Bring it on. Come on. Bring the magic. Hell, there's a king. That's right. I am the king, my line segment subject. So what? Who, who, who dares disturb our royal ritual?
Oh, I'm sorry, sir. My name is Arthur Square. Where are you? Insolent subject, reveal thyself. Can't you see me, sir? Oh, you shall refer to me as a royal king of my land. My apologies, you royal king of my land. I'm right here above you. Above?
[26:14] Uh, what do you mean by this? I am not familiar with the directions of above and below your race. You just are through above. The youngest child of space consists of the two directions, left and right. Oh, your majesty, you refer to length. Oh, you're much more than the length. Oh, no, sir.

But there you are wrong, I'm afraid. Your majesty's space does not consist of only your life. You're much more than the length. You're much more than the length. I'm not familiar with the directions of above and below your race. You just are through above. The youngest child of space consists of the two directions, left and right. Oh, your majesty, you refer to length.
Oh, length and space are the same. Oh, no, sir. But there you are wrong, I'm afraid. Your majesty's space is not consist of only your mind but also a quid, forming the vast two-dimensional plane of flat land. Heresy. Exhibit to me, please, this notion of above and below.
All right, sir. I'm not sure if you're one of your friends. You're much more than the two-dimensional plane of flat land. Oh, no, sir. I'm not sure if you're one of your friends, but you're not sure if you're one of your friends front-line heresy. Exhibit to me, please, this notion of above and below. Alright, your grace, I shall enter your world from above and show you my world.
Dude, you're freaking me out. How did you just, like, appear suddenly, Arthur of above? Don't you understand, your majesty? Look. Ha! He is gone. He is dead.
[27:23] He is not dead. He is here below you. Monster! Be thou juggler, enchanter, dream, or devil, no more will I endure thy mockeries.

You will now totally perish. Take that, you monster! Oh, where is the man from the front?
Can anybody hear me? Huh? Oh, dear. I'm asleep walking down.
I'm just foolishness is giving you nightmares. I hope it's no fool. Officer, who is there? Show yourself. I'm above you. Look out. Your voice. It comes from everywhere.
And yet, from inside me... And yet, from inside me... Who are you? I will show you. My name is...
[28:29] Spirius. Oh, great circle priest, I apologize for my presumption. Arthur, I am not one of your petty politicians. I am not a circle either. To be all accurate, I am an infinite number of circles in one.

A more perfect circle than any in fact that. I am a sovereign, something which you cannot adhere to now. Where did you come from? I am from space, the third dimension. But where is space now? Your knowledge of space is limited to length and width. I have come to inform you of height.
Absurd. Where is this height? It is above and below you. Southward and northward? I mean a direction in which you cannot look. Just as looking at my mind, I am a very good point. I am a very good point. I am a very good point. I am a very good point. I am a very good point. I am a very good point.
I am a very good point. privy, grand Philosopher. I am a very good point. Dr. Southward and northward?
I mean a direction in which you cannot look. Just as the king of Linedland could not look above, or below. But from which direction do you speak? And how do you appear and disappear like that?
[29:25] Just as when you went to Linedland and they only view you as a blind segment, when I entered Linedland, you are only capable of seeing me as a circle, a cross-section of my true self.

I can't find the method of your magic, Sperius. Other circles testing me. For the last time, I am not a circle. My stomach! What do you want from me?
After a time short, I have come to reveal the truth of the third damage. The third damage? Sperius! Help! This is madness or this is hell! It is neither. It is knowledge. It is truth. It is three-dimensional. Spacelab. Spacelab. Okay. We've seen enough of it. If you're interested, I will render the movie a very high-charged view. Let's go back to our...
[30:31] Where were we going? Okay, let's go there. Okay, I apologize for taking the text alone, but I thought it was very helpful for...

to try to illustrate the whole issue of Linedland. This, by the way, is this little... this little movie is what happened all along. And they come with the little things to exercise your brain in terms of mathematics.
Because it was done by... Harvard or something or other. One of them universities in the state. Well, Princeton University. And, obviously, they're not trying to talk about God or anything else, but what I'm suggesting is that it should be looks... there's some similarities.
We'll take a look at a couple of possibilities. What happens if you want to enter Flatland? What would it be like? Well, I developed a Flatland viewer. This is my Flatland viewer. Especially under a great deal of serious R&D; development.
See, there's two or a lot of them. The Flatland viewer. I can look as if I was in Flatland. I can see... oh, there's a big white line there, which I think everyone around... probably playing my son's chest.

Oh, there's... oh, I can't see it. It's a green and white.
[31:42] But, so if I had an object like this, and I'd view it with my Flatland viewer, I'd see a green line, but I could... as I walked around, I could tell it had... it was a circle. It would be to be a circle.

Similarly, this would be to be a square. Alright? But to them, Flatland is all it is is this. Okay. What would it be like if we entered Flatland? Um, well... oh, yes.
Now I don't want to show us the entering Flatland. I use my Flatland viewer, and I view it. Here I'm coming into Flatland. I don't see anything, and suddenly a circle appears, right? But if I put on my finger, I see suddenly one, two, four circles, and they all merge into one.
Amazing stuff, alright? From a Flatlander's perspective. Okay. I'm showing you that. We can be everywhere at once.
Interestingly enough, if that is Mr. and Mrs. Square on this thing here, you can see them at somebody else. I can be really close to them and not be in Flatland. I can, one figure really, I'm very close to them. I'm very close to that person, and close to both of them.
[32:46] Okay. But I'm not actually in Flatland. Why do I make all this point? Okay. By the way, we can see everything. We're looking from above. We see the whole thing. And we presumably get in there and mess around.

We have a lot of power. Okay. Well, let's go talk about God himself. He is in us and around us. Where two or three are gathered together, he is in his name. He is in the midst. He sees a beginning from the end. This is out of scripture, right? He performs miracles. He is omnipresent, omniscient, omniscient, and omnipotent.
That's bigger of speech, but I think it's called an omnimathea. I'm not going to be an omnimathea. Anyway. He is everywhere.
Now, while this doesn't constitute proof that God is in a higher dimensionality, it sure looks very, very similar. And, you know, when you see the progression of the moon from point land to space land, you can see that, why stop there?
[33:56] Well, God, because we believe our God is, oh, sorry, I jumped around a little bit. We believe our God is constrained by time and space. And guess what? Modern physics tries to describe the four fundamental forces of nature, employing a modern theory called string theory, which is an effort to integrate quantum mechanics and general relativity, which two are opposed to one another in some real sense.

It actually ends up with an argument that there are actually more than five dimensions, probably closer to ten. So, in some sense, this whole concept is consistent with modern, no, sorry, that's right.
Modern physics theories are consistent with this, but I don't know which one person. I think God is upside of time and space. And I hope I provided some convincing evidence. Well, you guys might like scripture, and I certainly say, Isaiah 57 reminds us that, it talks about the high and lofty one who inhabited eternity as part of eternity.
Okay. And I want to make a note here that our God is not a God of the gaps. We talked about that earlier, I guess, it was, like with that before, I mentioned the God of the gaps.
This is God when we have a problem that we don't understand when we say God did it. You know, and the trouble with that is, atheists love this, because as soon as we discover some scientific reason, then God is made smaller and smaller.
[35:26] Well, I don't think our God is a God of the gaps. But there's another God that's on the other side, this God called the God of the Geriatric. I think it's also called the blind watchmaker. He started things off and hasn't done, and doesn't meddle with us.

Or when he comes around, he constrains himself to our laws of physics. Well, I think that God is too small, too. I think our God is perfectly capable of miracles from our perspective. Now, he doesn't have to be breaking his own laws of physics, because his own laws of physics exist in multidimensions that we can't understand.
So it's not a problem to have miracles. So suddenly we found ourselves looking like God to the Flatlanders, appearing and disappearing. Did we break any laws of physics? Not at all. Oh, we broke their laws of physics. Interesting.
Okay. Alright. If you're on time and space, how would he communicate with us? You know? Our God is going to talk to us. How do we... How would he do it?

Well, he could do it several ways. He could speak directly to us. He could write to us. He could become one of us. He could, and indeed he did, in all three ways, as we all know.
[36:31] He speaks directly to us. Direct revelation. I don't intend to talk to that topic. But you can look at Ephesians 3, 2-5, about the Holy Spirit at work.

He could write to us. And I... It's the Bible we're talking about, and it's a topic I would plan to talk about. Don't go over again. I'm sorry I'm taking too long here. I can see that. And he could become one of us. Well, that's Jesus, who's not a topic, a person.
Nature of the Bible. Okay, if God was writing the Bible, and he's probably better than the average communication engineer, he would have some...
The communication engineer would make sure that he did some certain things, and what would we have to consider? They'd have to have security. I mentioned that earlier. Redundancy. And authentication. I'm going to talk briefly about the first two, and a little more about the last.
Security. I don't know how the system works, but according to Matthew 13, 14, by hearing ye shall hear, and shall not understand, and seeing ye shall see and not perceive. In Acts 28, 26.
[37:31] Well, what it really says, is that the Bible apparently uses some form of keyless encryption. We can read it. Anybody can read the Bible, but only truth is revealed to those that see it through the eyes of faith, right by the Holy Spirit.

Others can read it, and they don't see it. So, there's a security in that sense. There's a redundancy. Now, I may be stepping into deep water here when I make this claim that many books of the Bible are removed.
The message of salvation is not incomplete. You can still understand the message of salvation. The message of salvation, as I read it, is seen through the whole scripture. We see it in Abraham and Isaac.
We see it in pre-figuring Christ. We see it in Moses and the Exodus, pre-figuring Christ. We see it all through the Bible. Now, I like to look at it from a scientific perspective.
There's a device called a hologram. And you've probably seen some holographic images. But the fundamental development of a hologram is you create a plate that when you shine coherent light, that is to say laser light on it, on the other side you'll see a three-dimensional image.
[38:45] That's the idea of the hologram. The neat thing about the hologram is that if you take that plate and break it in half, and just shine it on it in half, the whole image is still there. It's not as sharp. You keep breaking it in pieces, the whole image is still there, but not quite as well defined.

And I think that's like scripture. Now, I don't suggest you go and pull chapters of your Bible out and see if it's still, no. No, scripture is like that, I think, that you read apart. You don't see it as clearly as when you read the whole thing. But the message is there.
If you read, the message is there where you read just the Old Testament, just the New Testament. I don't know how few chapters you can read to get the whole message out. I'm not going to argue that one. But there's still, the message is spread throughout scripture.
Which I think is a really nifty thing. Okay. Alright. Alright. Okay. I thought I already covered that. Okay. Sendications. How would we know the God, how do we know that God is the author?
This is what I really originally, I'm inspired to do this talk about. I'm moving on very quickly. I see those watching in time. Okay. There's some of the ways you can show us. First of all, there's prophecy.
[39:49] Now, my former position was the following. Prophecy was only good for television end timers to make money. It seemed to me that it was really a useless thing. I was widely bothered with it because it had no real use, and any real angle could just steer clear of it, right?

Probably because of it watching in the end of television end timers. I've revised my position. I can be, oh sorry, I want just an aside. We revisionists, of course, know that prophecy can't be true, that it can't be real like claim that's not real, and then of course that means that every book of the Bible will be written at the same time.
Which is a complicated problem because you have so much historical evidence that it's not. But anyway, if you wanted to scout prophecy, you really have to throw out a lot of the Bible.
Alright? My current view is that it, in fact, is a form of a vindication. It tells us that God wrote it. Only he knows the beginning and the end. We don't. So we can't prophesy, we can't forecast it in our own power.

So it gives us a reassurance. But, don't use it for forecasting the future. Now, just a, I'm just kind of aside, I want to mention just an interesting thing that I found interesting, again you don't have to believe it or not.
[41:02] There are about 300, over 300 prophecies concerning the Messiah in the Old Testament. And Peter Stoner in 63, we looked at 48 of them, and estimated the probability of them being fulfilled by one man by sheer random chance.

One man by random chance. That probability is one in 10 to the 157. 157 zeros. Now, it's really a tricky number to come up with, but it's huge.
It's positively huge. Of course, the skeptic will say it isn't random chance because the Bible was written all at the same time, and they made sure that these prophecies appear to come true. But for those of us who know that it wasn't, the random chance discussion is, it's quite fascinating.
You know, the kind of way you come at it, born in Bethlehem, well, how many people have been born in Bethlehem up to the 20th century? Well, maybe 10,000, let's say people because it's a very small town. How many in the world?
Well, maybe a billion, then you get 10 to the 1 and 10 to the 5th. You know, how many enter Jerusalem and a donkey? Well, let's give them a benefit. One in a hundred. You can go on like this and take into numbers. They're really conservative. You end up with a huge number.
[42:05] Okay. Just to give you an idea how improbable that is, I'm going to point out something else. If you believe the age of the universe is 3 billion years, you're welcome to not believe that.

That was 10 to the 17 seconds ago. Alright? Scientists tell us there are 10 to the 64 molecules in the universe. When I say 10 to the 64, that's 10, 64 zeros. Winning the lottery, the statistician tells us it's 1 to 10 to the 8th.
Why do I tell you this? Because winning the lottery for every molecule that you owe in the universe, for every second since the beginning of creation, gives you the number of 10 to the 87th, 89th.
8 plus 64 plus 17. That's the probability of winning it. And it's way more probable than the messianic prophecies, the 48 of them being filled in one person by random chance.
Miracles, of course, and of course, manufacturing could happen too. Okay. I want to move into scientific knowledge. That's evidence of his, he knows something about science that we didn't know at the time, but we do now.
[43:21] Exodus 32, 13, I multiply your seed as stars in heaven. That doesn't sound like a very profound statement, because in those days, there were only 6,000 stars you could see.

And that's how many people, there were at least that many people when the nation was leaving at the time of Exodus. So it couldn't have been very profound until you realized that here's a shot today, recently, of the Hubble Ultra Deep Field near a constellation of Fornax.
There are about 10,000 galaxies, I believe to go 50 billion light years away. But each one of these galaxies is thousands and thousands of stars. So that was a really astounding statement that people at the time may not have understood.
Staying up in space, King Vine, the beautiful Pleiades and the Lucifer Cords of Orion, those days they wouldn't have known what we know now by several astronomers that the seven stars of Pleiades are moving in a group.
And the stars of Orion are actually independent, moving independently. The latter are loose and the others are bound. But you couldn't in Bible times know that. He sits enthroned above the circle of the earth and he spends the earth over nothing.
[44:32] Well, okay, in those days Erasmus thought that, let's see, the earth was flat and probably the Greeks thought it was, well, it was by Atlas and I think the Hindus and Buddhists thought it was flat.

Anyway, this is shot from space and we don't see any elephants that work down there or so. I'm fairly, just another fact that there was some hidden scientific evidence.
This is one that a Christian would say, ah, it's a problem. His sun is, he, his going forth is from the end of the heaven and his circuit unto the ends of it is talking about the sun. And skeptics will of course say that, hey, the sun doesn't run around the heavens, it's the earth rotating.
But of course we even use that, that's the figure of speech we use today, even though we know better, the sun rose, well it didn't rise, the earth rotated. However, even if you say that, forget the earth rotating, the sun does move around in the heavens because it's in a galaxy that moves around in the heavens.

I don't think it's moving around, so in fact it is indeed moving around. Here's a couple, his work is finished, it's creation of the world, the earth will wax old.
[45:42] So, that's conservation of mass and energy, the first one, he's created everything, there's no more creation needed, and we're going downhill, that's the law of entropy, the second one. This is, I'm going to skip over this, the water cycle, it wasn't only, it wasn't understood until 200 years, 300 years ago, but it appears to be in there.

Interesting one, he that is eight days old shall be circumcised among you. Why, in eight days, it turns out, scientists tell us that the blood protein for thought reaches its maximum effectiveness. Didn't know that then, obviously, and other people circumcise at other times. There's laws on hygiene, I mentioned, that wasn't understood until many later.
I think Dr. Semmelweis in 1845 made doctors wash their hands between patients. The mortality rate in pregnant mothers went from 15 to 30 to less than 2%.
You know, stuff that was known in scripture, we ignore. And then there's the whole sanitation laws, and they were a big problem up until the World War, where, in fact, during the war time, five times as many people died from disease and from military action.
[46:58] Okay, I'm moving into a really scary area that people may, arcane, fanatical, sometimes a pelt area, that is hidden patterns, it's greatly debated. I'm just going to mention a couple of more benign ones.

But the whole topic of Jewish mysticism and Kabbalah, you can get into that stuff, and I don't really think it's helpful. But one of them, the gematria, is finding numbers in the Bible. Now, all letters in the Bible have some equivalent number, every letter in the Hebrew Greek alphabet.
And just an interesting calculation, when he came, when he talks about the circumference of the molten sea, his 30 cubits in the diameter is 10.
You've got a problem here. They don't match. But apparently, if you work out the values of the spoken word for circumference and the written word for circumference, take the ratio of the two, you get pi to four decimal places.
And then, elsewhere, I don't know, the Jewish lunar month is more accurate than anybody else's lunar month, except the definitive one from NASA. And it's accurate to two parts in a million or something like this.
[48:11] I don't think you do the numbers, you don't really need to know that. Well, you may want to know, but I'm not going to get to. Another area is the heptatic structure of the Bible. This is where sevens, you see lots of sevens, a guy called Ivan Paninam looked at this, used to seven.

Matthew 1 to 11 in Greek has the number of words divided by seven, the number of letters divided by seven. Just seven seems to be really popular. I don't get too excited by this, because I understand other texts have the same property, and so I wouldn't get hung up with that.
Even the biological systems of the seven appears. I think God just liked the number seven. The one that kind of interests me was equidistant letter sequences. And we're looking for words or phrases or pairs of words whose letters are separated in the text by a fixed amount, a fixed number of other letters.
Of course, any serious investigation could only have been done by computers. You couldn't have done it earlier. Now, I'll illustrate what I mean. This is Genesis 1-1, and this is in English, I can read that.
And I hope some of you can read this. I am okay. This is Genesis 1 in the original Hebrew. And six letters in, we have a tau.
[49:32] And then you count 50 letters, skip the spaces out, and you have a vav. Another 50 letters, and you have a resh. And another 50 letters, you have a he.

Does anybody know what that spells? Okay. It spells Torah. Alright. Now, this is no big deal, but I'm trying to illustrate the point here.
You can find patterns. Now, people can always find patterns. They go off and do various things. But here's what I found really fascinating. It was a work done by Witson, Ripson, Rosenberg, and published in the Journal of Statistical Science in 94, measured the nearness of the word pairs.
Now, they went to Encyclopedia of Great Men of Israel, took their names and took their birth dates, and compared them, 32 of them, and went off saying, see if we find them together. We find them grouped in the same part of Scripture, with some equidistance letter sequences.

They compared the results just to be sure that they weren't doing anything wrong. They went through the same chunk of Genesis, randomized all Genesis, randomized all letters, also randomized all the words as a different trial, also used War and Peace, a Greek Hebrew translation of it, and also used Isaiah, as well as randomizing the pairings of the numbers.
[50:51] And what they found, their conclusion, which was published in the proximity of Evidison's letter sequence with the related meanings of the book of Genesis, is not due for pure chance.

Now, although no one's been able to refute the findings, to date, the debate is still raging. And of course, there's misuse and sensationalism that I don't even want to talk about.
My view is the equidistance letter sequence, I think we can view them as a watermark. If I pull out a bill, I see this is a $50 bill, I don't see it often, and...
But if I hold it up to the light, I can see a picture of the... whatever his name is. There. A little picture of him, I can see it. And you see these little markings here? It doesn't make any sense until you shine the light through it. And it's a $50.
I pass this around for you to look at, but Bill would take it, so it's no point, you know? So, I just... but I mentioned that in passing, I think this is a watermark.
[51:49] The equidistance letter sequence, in fact, give us some indication. But are not causes for proof. They are causes for reassurance that God is the Creator, and that He left a signature here.

So, in summary, our God is outside of time and space. I think His creative glory is shown throughout creation. He's communicated us through the Bible, authenticating it by showing prophecies that are not for making money and...
or scaring people into the kingdom. Scientific knowledge, not to make the Bible a scientific test. And hidden patterns, not for forecasting the future. All for authenticating our soldier.
So, I'd like to conclude by pointing out, isn't it great that we have an omniscient, omnipresent, and unlimited God? Amen.
Scientific question, please. I'll answer a few questions, but I actually do have to run pretty soon. And, I don't know, if anybody would like to see the whole film, tell me about it, we can know it to you at some point.
[53:00] Yes. You mentioned that God is not the God of the gaps. God of the gaps, right? But, in your perspective as an engineer, it sounded like your argument was the God of the gaps.

My attention. How do you say that? Because you said, because we can't create these things, it must be done like that.
Could you repeat... Yeah, I don't quite... You're saying because we... I said we can't create... Yeah, in your first point, as an engineer, you have...
Oh, we're not... Well, we're not... Okay, we're not able to do... Well, the first... Software engineering, or... Or, uh... Patrol system engineering can't do all the advanced things that are done inside the cell.
Right. You're saying, I... I concluded it must be done by God. No. I'm not... It's not... No, that's not a proof. That's just an evidence that... That... That... That...
[54:02] It is... Somebody far, far, far superior to us. It's not by random chance, I think. Now, I don't... Again, it's not proof. There's never proof here. That, you know, you can do no test. I can't do an experiment to test it. I can say, it is completely consistent with...

Whoever did it was really the best programmer there's ever, ever been. Right? And... Whoever did it was the best control engineer who's ever, ever been. Right? And... That's about as far as you can go.
You can't make the broad statement that it is proof. People keep coming up with proofs of all sorts of things that are not proof at all. They're just... If something fits their theory, it becomes proof. It's not. It's evidence. And I think there's evidence that there is a creator who did that.
Right? But, you know... Somebody will... Somebody will see the same thing and say, Isn't it amazing how... How evolution did that? I was reading one book recently, which...
One of the scientists were... I forget the question was put... It was put to scientists, Mathematicians and Engineers. And a hundred years ago, A question was asked.
[55:04] The answer was God, Jesus, and... And basically, 40% of God was in fact a creator.

The same test was run with the same questions asked, The same demographic about God. See, three or four years ago. Presumably not taken.

No. No. Ha ha! The proportion of those who believed in God, Versus those who weren't sure, Was about the same way. 4060. That had been...
With all the evidence that we have, With all the arguments that's going on, There has been no change in that. Because you're... Because the decision about whether you believe in God, Is not one that is made by scientific evidence.
It's made by inside the heart, And that's why it's not changed. I think that barrier to believe in A lot of people don't want to believe in God, Is because if I believe, Now it's...
[56:03] It's strange on me. We have to change it. We have a model code for me, Let the class change, And I don't want to face change. So therefore I have to, I have to ignore it, Or convince myself it doesn't exist.

Absolutely right. Very good about it. There's one other question. I just want to ask, Where can we actually get the movie, If you don't want to borrow from the other Donsolvian trade? Okay.
If you look up flatland, Just the word flatland, And you'll see flatland the movie. There seems to be two kinds, But it is called flatland the movie. I can read the information up here, At the moment, At the moment.
There seems to be some public demand stuff On the internet too. Oh yeah. By the way, There's a whole bunch of stuff, Scientific American, That did this in the 80s, Late 60s, 70s, Late 60s, 70s, That went to flatland.
They worked out that the, The gravitational forces, Were not inverse square, Which we know, The most one over r square, Separation, But they're actually inverse r. You know, They're interesting, Physicists got into a big way, They're having a great time with it.
[57:05] But, Yes, you'll find a bunch of stuff in the internet. So, This just came out, You can't even get it in any school, Other than directly from that. Okay. For about 40 bucks.

I was intrigued, In reading, Francis Collins' book, About the DNA, But when it was introduced, Having decoded, Finally, That Bill Clinton introduced it, And the language of God.
It will stick, Probably forever. Which is always embarrassing, But I'm not sure about it. I don't want my courage to go to Bill Clinton, But I agree, That's certainly the language, Well that would be true.
Okay, I'm afraid I have to go, Or I'm in deep, I'm a little, As we say in the choir, We're part of Terry, For the children, We're all terrified of it.
Thank you, Jack. Thank you, Jack.