

*Science*

*&*

*The Case for God*

*(part 2: The Fine-Tuned Universe)*

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The text in this presentation

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*Recommended  
Reading*

# There is A God

*(How an*

## **Atheist Scientist**

*changed his mind)*



John M. Kinson

# Does Science Point to God?

*(Is there scientific evidence for God?)*

*God & Science – Book 2*



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# *Introduction*

*(part 2: The Fine-Tuned Universe)*

# Introduction

## Does Science Point to God?

- Increasing amounts of evidence from Science are pointing towards Intelligent Design of our universe
- This is consistent with the existence of God
- Increasing numbers of scientists and philosophers are coming to this conclusion based on the evidence
- This series of presentations discusses some of the evidence

# *Part 1*

*(in part 1, we saw that ..)*

# **The Big Bang points to God**

**Very unexpected for Atheism**

## **What about Christian Theism ?**

Genesis – In the Beginning God created the universe... And he said “let there be light” and there was light...

# *Part 2*

*(The Fine-Tuned Universe)*

A Cosmic Microwave Background (CMB) radiation map showing temperature fluctuations across the universe. The colors range from dark blue (cooler) to red and yellow (warmer), with a prominent horizontal band of higher temperature in the center.

The Big Bang

**Fine-Tuning the Universe**

Origin of Life

# A Universe Designed for Life



spiral galaxy

# A Universe Designed for Life

In physics, evidence has shown that the universe is **"finely-tuned" for the existence of life**, suggesting the work, as Astrophysicist Fred Hoyle puts it, "of a super-intellect."





98.3 MHz

- Walking on a beach
- You come across a radio playing music from a station
- You dial the radio up and down the frequencies
- And you find music at only that one specific frequency
- Was the radio setting chosen by an intelligence?
  - Or was it by random-chance?



# Fine Tuning the Universe

## 30+ dials

- Have to be precisely set
- for universe to be stable enough & capable of life

## If even 1 dial is off a tiny bit

- Kaput
- No life possible

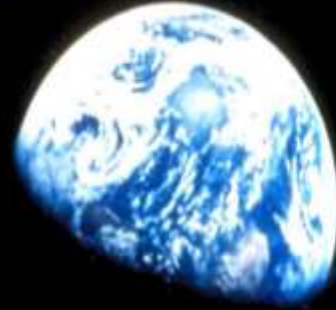


*Examples  
Of Fine-Tuning*

# *The Weak Force*

- Operates inside the nucleii of atoms
  - has to be fine-tuned to 1 part in  $10^{100}$
  - or you don't get a life-permitting universe
- 
- In comparison, the universe has existed for only  $10^{17}$  seconds
    - and it has a total of  $10^{80}$  particles

# Analogy to understand the Probabilities



**1:10<sup>28</sup>**

- Cover North America with dimes up to the moon, 239k mi
- Cover 1 such continent with dimes.
- Hide 1 red dime in the middle of all of these dimes.
- Get a blind-folded friend to pick one dime at random.
- The probability of her picking the right dime (at random) is 1 in **10<sup>28</sup>**



# *Cosmological Constant*

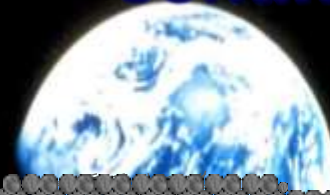
- Drives the acceleration of the expansion of the universe
  - has to be fine-tuned to 1 part in  $10^{120}$
  - or you don't get a life-permitting universe
- In comparison, the universe has existed for only  $10^{17}$  seconds
  - and it has a total of  $10^{80}$  particles





# Low-Entropy Origin $\rightarrow 10^{10^{121}}$ continents

1:10<sup>10<sup>123</sup></sup>



- Cover North-America with dimes up to the moon, 239k mi
- Cover  $10^{10^{121}}$  such continents with dimes.
- Hide 1 red dime in the middle of all of these dimes.
- Get a blind-folded friend to pick one dime at random.
- **The probability of her picking the red dime is 1 in  $10^{10^{123}}$**
- In comparison, the entire universe has only  $10^{80}$  particles.

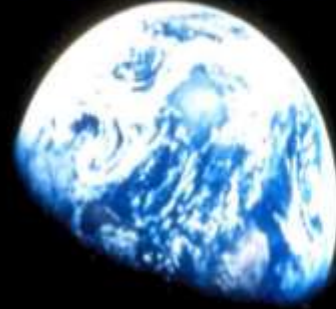
*More Examples  
Of Fine-Tuning*

# A Universe Designed for Life

Parameter	Maximum Deviation
Ground state of He, Be, C, O	$\pm 4\%$
Mass of neutron	$\pm 0.1\%$
Electron:Proton Ratio	$\pm 1:10^{37}$
Electromagnetic force:gravity	$\pm 1:10^{40}$
Expansion rate of universe	$\pm 1:10^{55}$
Cosmological Constant	$\pm 1:10^{120}$

**30-50 parameters have been fine-tuned for life**

# Design of the Laws of the Universe

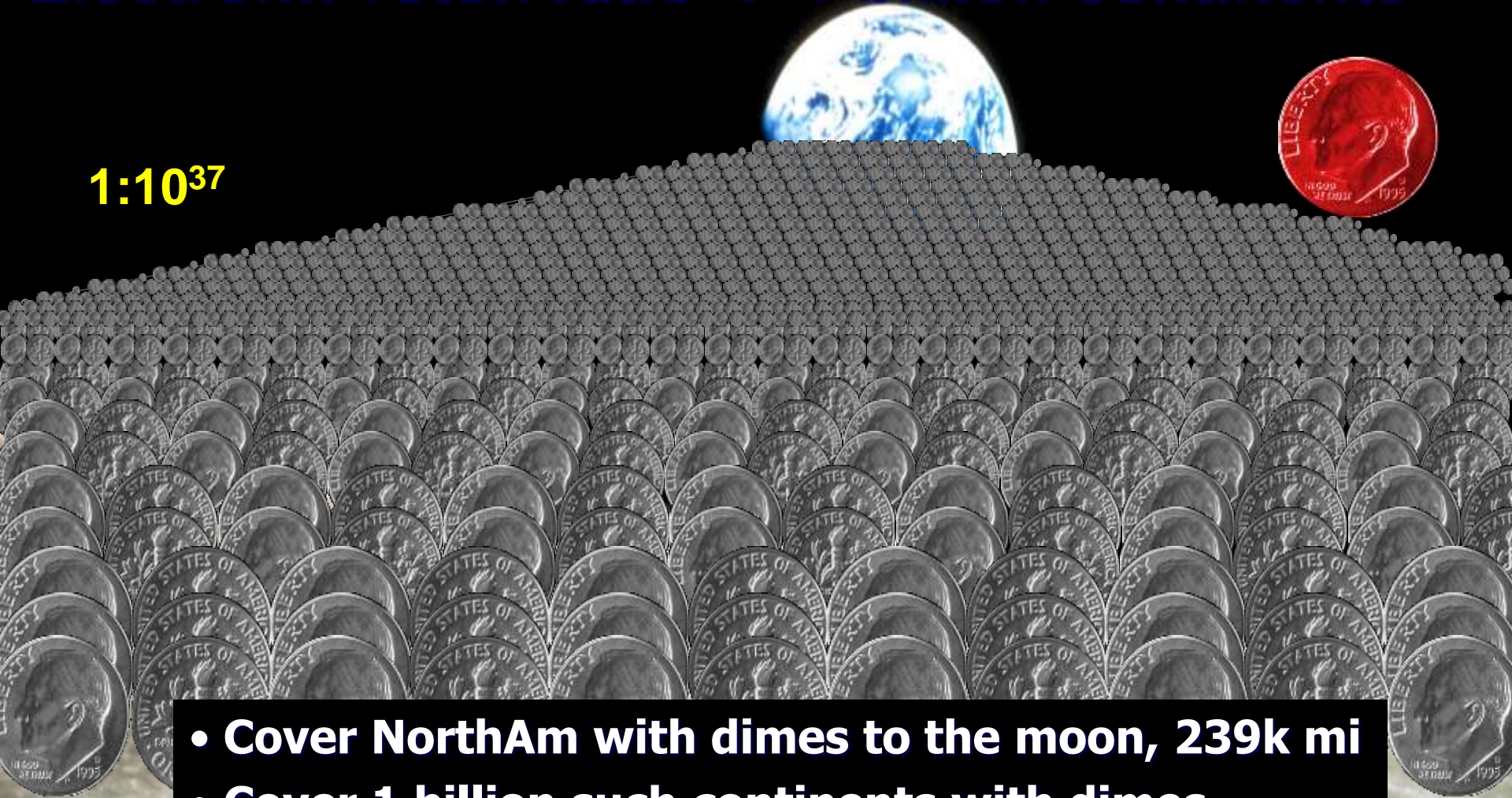


**1:10<sup>37</sup>**

- **Cover North America with dimes to the moon, 239k mi**
- **Cover 1 billion such continents with dimes.**
- **Hide 1 red dime in the middle of all of these.**
- **Get blind-folded friend to pick one at random.**

# Electron:Proton ratio → 1 billion continents

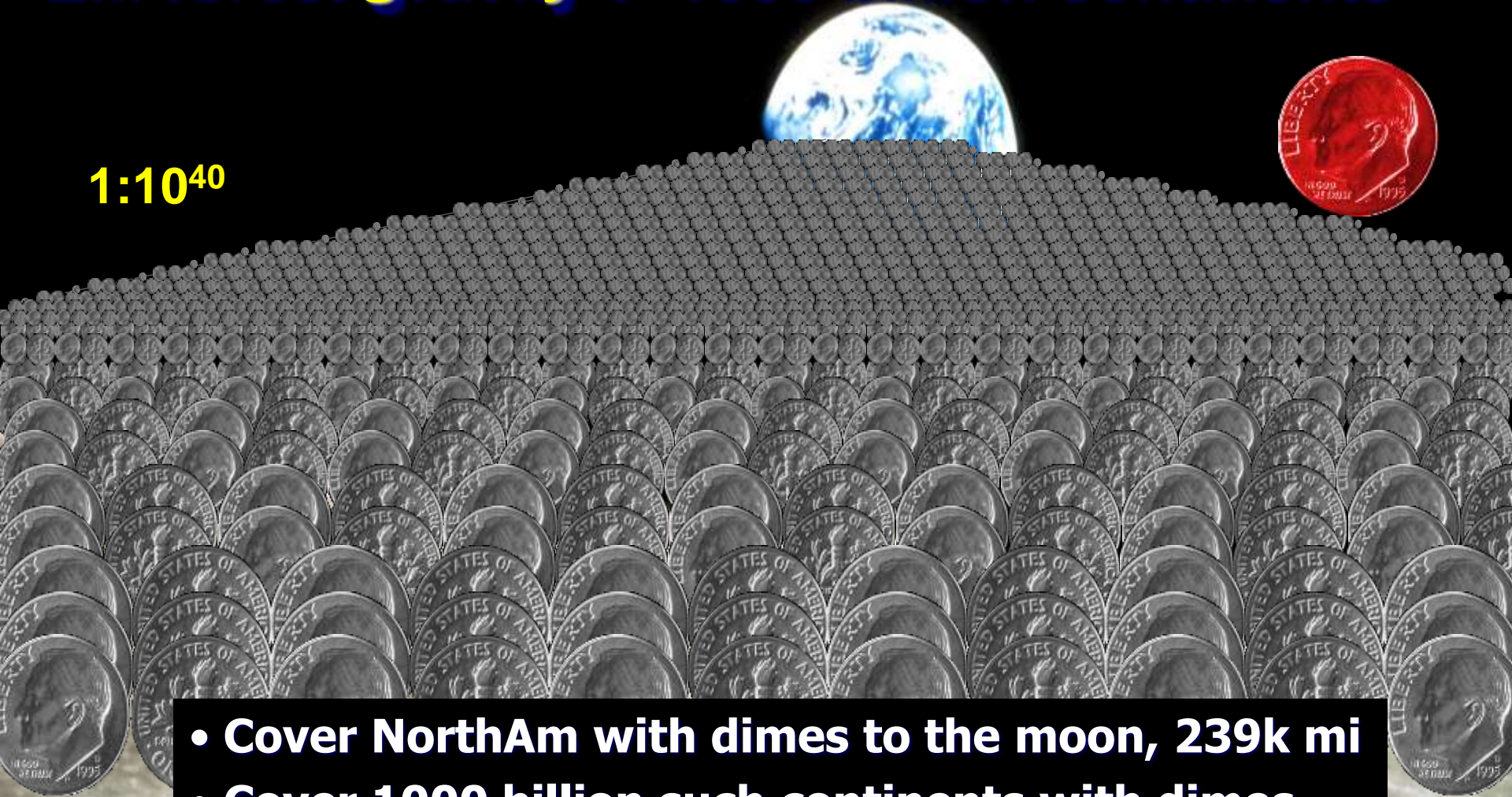
1:10<sup>37</sup>



- Cover NorthAm with dimes to the moon, 239k mi
- Cover 1 billion such continents with dimes.
- Hide 1 red dime in the middle of all of these.
- Get blind-folded friend to pick one at random.

# EM force: gravity $\rightarrow$ 1000 billion continents

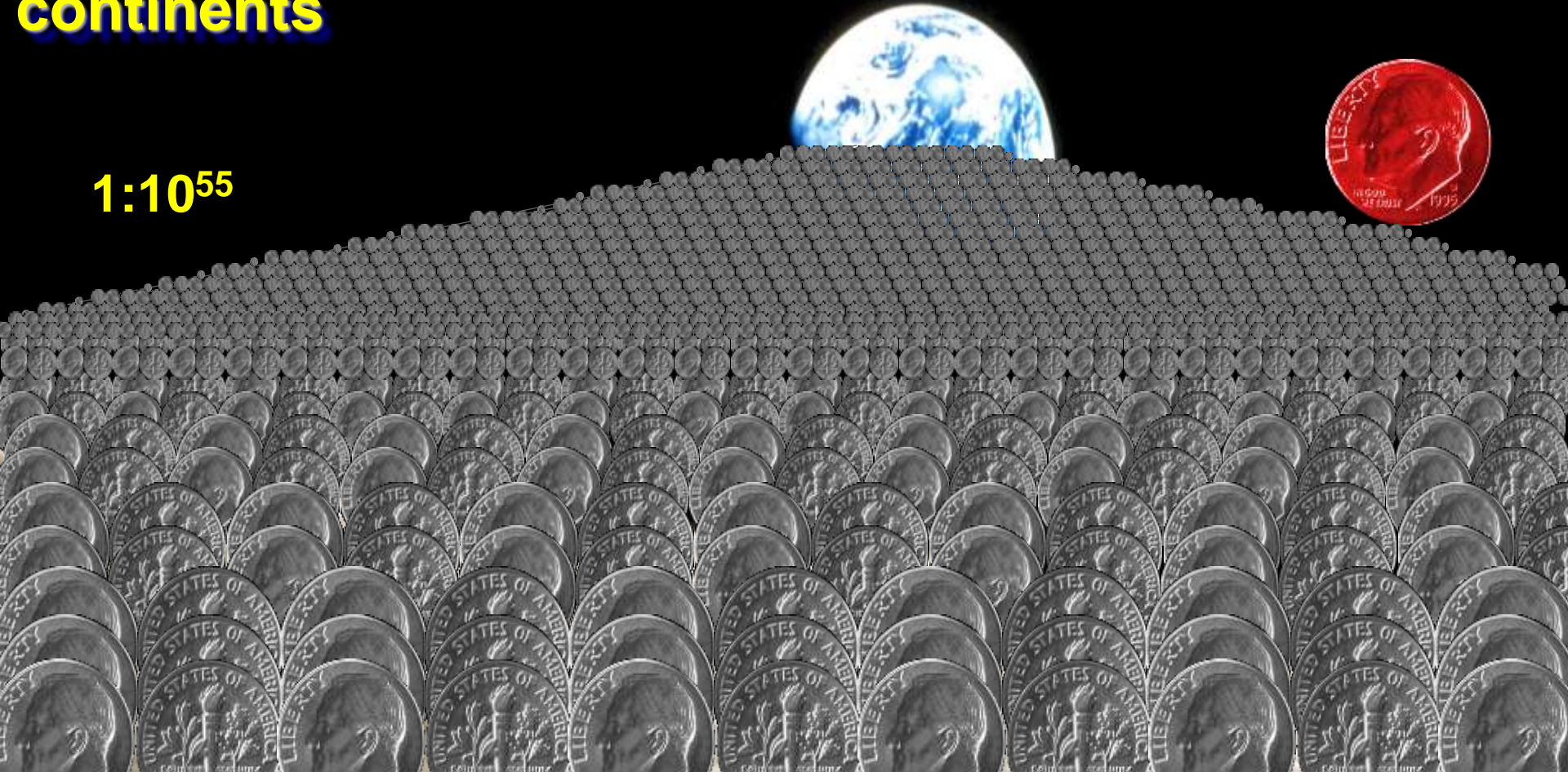
1:10<sup>40</sup>



- Cover NorthAm with dimes to the moon, 239k mi
- Cover 1000 billion such continents with dimes.
- Hide 1 red dime in the middle of all of these.
- Get blind-folded friend to pick one at random.

# Expansion rate of universe → billion billion billion continents

1:10<sup>55</sup>



- Cover NorthAm with dimes to the moon, 239k mi
- Cover billion billion billion such continents with dimes.
- Hide 1 red dime in the middle of all of these.
- Get blind-folded friend to pick one at random.

# The probabilities

of these (fine-tunings happening by  
Random Chance)

are so incredibly low

that it is Irrational for Atheists  
to insist that they did  
arise by random chance.

**Evidence such as these**

**Are shaking the Atheism/  
Agnosticism**

**Of many Scientists,  
philosophers & other  
intellectuals**

It is interesting – to see signs of puzzlement in otherwise naturalistic writings/ publications

# A Universe Designed for Life

“All the evidence available in the biological sciences supports the core proposition of traditional natural theology–

- that the cosmos is a specially designed whole
- with life and mankind as its fundamental goal and purpose,

- a whole in which all facets of reality, from the size of galaxies to the thermal capacity of water, have their meaning and explanation in this central fact.”

- Michael Denton (agnostic Biochemist)
- Nature’s Destiny, p. 389



# Science & The Case for God



**“There is for me powerful evidence that there is something going on behind it all....**

**It seems as though somebody has fine-tuned nature's numbers to make the Universe....**

**The impression of design is overwhelming.”**

**-- Paul Davies,  
Scientist (Physicist)**



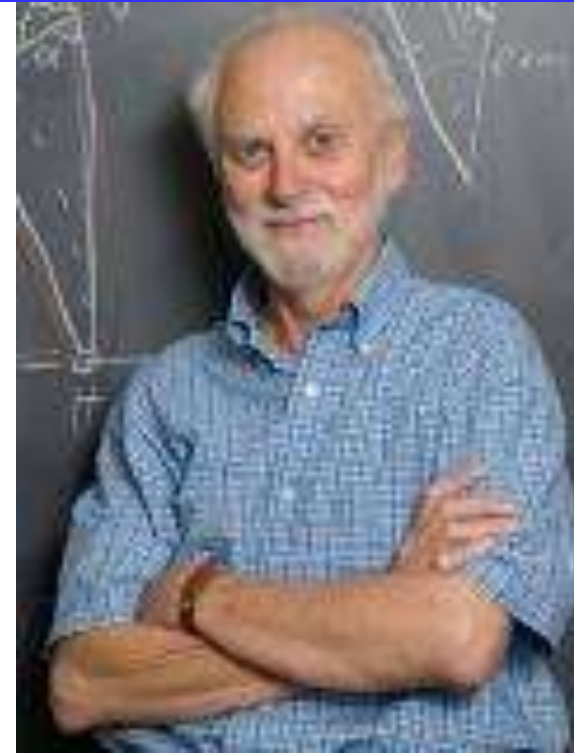
# A Universe Designed for Life

“As we survey all the evidence, the thought insistently arises that some **supernatural agency - or, rather, Agency - must be involved.**

Is it possible that suddenly, without intending to, we have stumbled upon **scientific proof of the existence of a Supreme Being?**

Was it God who stepped in and so providentially crafted the cosmos for our benefit?”

-- George Greenstein, Scientist

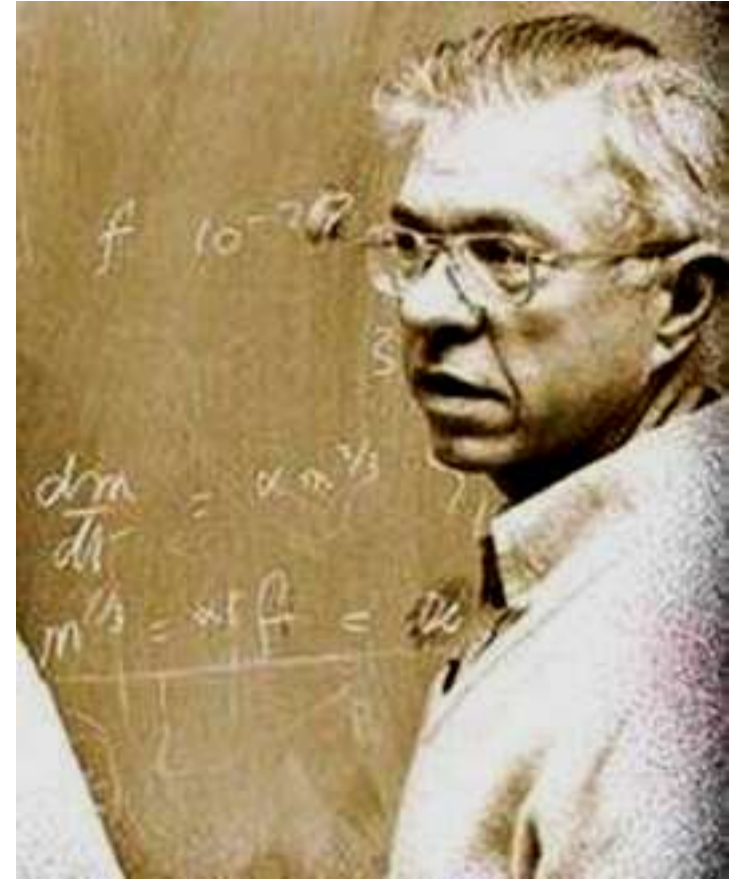


# A Universe Designed for Life

A common sense interpretation of the facts suggests that a **superintellect has monkeyed with physics**, as well as with chemistry and biology, and that there are no blind forces worth speaking about in nature.

The numbers one calculates from the facts seem to me so overwhelming as to put this conclusion almost beyond question.

(Fred Hoyle, Astrophysicist)



*Conclusion*

# The Fine-Tuning points to God

**Very unexpected for Atheism**

But not very surprising  
**if God exists**  
& created the universe.

Intelligent Design shows its presence  
by specified events of very low probability.

# A Universe Designed for Life



For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream.

He has scaled the mountains of ignorance;

he is about to conquer the highest peak; as he pulls himself over the final rock,

he is greeted by a band of theologians who have been sitting there for centuries.

-- Robert Jastrow, Astronomer



*Questions*


*(for discussion)*

# Questions for Discussion

- What did you learn (that was new to you) from this presentation?
- Did it come as a surprise to you that there is Scientific Evidence for God?
- Which of these evidences do you think is the most compelling?
- Do you feel that Science and Christian Faith are compatible?  
Why, or why not?
- Was there anything in the presentation that was confusing or not clearly communicated?

## •Action Steps

• Provide feedback to the presenter about what topics you would like covered in more detail.

• Read a book that goes into more detail on these topics. 

## There is A God

*(How an  
Atheist Scientist  
changed his mind)*



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## Does Science Point to God?

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# *Appendix*

*(Responses to Atheist  
Objections)*

## Atheist Objection

Many atheists are moving to Theism based on such evidence.

--

Some Atheists instead argue that:

“A Multiverse created our universe with these fine-tuned parameters (that match the requirements of life)”

I.e., there is an infinite (or very large) number of universes that have been created by the Multiverse, and among this infinite (or very large) number, our universe just happens to have these fine-tuned parameters (that match the requirements of life).

## Theist Response

A Multiverse has to be either sequentially Finite or Sequentially Infinite

- 1) A Sequentially Infinite Multiverse (SIM) is impossible (and so it is irrational for the Atheist to insist that a SIM created our universe)
- 2) A Sequentially Finite Multiverse (SFM) raises the question, what caused the first Mother Universe (in the SFM)?
- 3) In addition, both SIM and SFM raise the question, what caused the entire SIM (or SFM)?

We discuss these on following slides and show that ALL of the Atheist options are Irrational. It is more Rational to believe that God created the Universe.

## Atheist Objection #A1

The FIRST universe (of the Multiverse) came into being

- Out of nothing
- By itself

## Theist Response #A1-1

This (above) is an Atheist-Conjecture (a guess or an assertion that is not supported by evidence)

--

This Atheist-Conjecture is irrational

- This (Atheist-Conjecture) destroys the grounds for Rationality
- The very basis of Rationality is Cause and Effect
- if the entire FIRST physical universe came into being without any cause, this destroys the very foundations of Cause & Effect
- And destroys the grounds for any Rationality (and for any rational endeavor)

## Theist Response #A1-2

- If the Entire FIRST physical universe can arise out of Nothing without any cause, there is nothing to prevent Flying unicorns, and Flying Spaghetti Monsters from popping into existence out of Nothing and without any cause
- In fact they can and will do so all over the place
- the fact that we have never seen Flying unicorns (and Flying Spaghetti Monsters) pop into existence by themselves anywhere (and all over the place) is strong evidence that it is not possible for things to just pop into existence without a cause.
- And therefore, this is strong evidence that the universe itself cannot just pop into existence without a cause.

## Conclusion

- It is **irrational** for an Atheist to insist that
- The FIRST universe came into being out of nothing, by itself, without any cause (without God).

# Atheist Objection #A1

The FIRST universe (of the Multiverse) came into being

- Out of nothing
- By itself

## Theist Response #A1-3

This Atheist-Conjecture is irrational

- If Nothing exists
- then there is Nothing available to do the creating of Something
- so if Nothing exists, then the only possible state of affairs is for Nothing to always exist

### Something cannot just pop into existence out of Nothing

- our uniform experience confirms this to be true;
- and all of science also confirms this to be true.

## Conclusion

It is **Irrational** for an Atheist to insist that

- The FIRST universe came into being out of nothing, by itself, without any cause (without God).

The Theist view is more **Rational**

- That God created the Universe

## Atheist Objection #A2

- The entire Multiverse came into being
- Out of nothing
  - By itself
  - Without any cause

## Theist Response #A2-1

This (above) is an Atheist-Conjecture (a guess or an assertion that is not supported by evidence)

--

This Atheist-Conjecture is irrational

- This (Atheist-Conjecture) destroys the grounds for Rationality
- The very basis of Rationality is Cause and Effect
- if the entire Multiverse came into being without any cause, this destroys the very foundations of Cause & Effect
- And destroys the grounds for any Rationality (and for any rational endeavor)

## Theist Response #A2-2

- If the Entire Multiverse can arise out of Nothing without any cause, there is nothing to prevent Flying unicorns, and Flying Spaghetti Monsters from popping into existence out of Nothing and without any cause
- In fact they can and will do so all over the place
- the fact that we have never seen Flying unicorns (and Flying Spaghetti Monsters) pop into existence by themselves anywhere (and all over the place) is strong evidence that it is not possible for things to just pop into existence without a cause.
- And therefore, this is strong evidence that the universe itself cannot just pop into existence without a cause.

## Conclusion

It is **irrational** for an Atheist to insist that

- The Entire Multiverse came into being out of nothing, by itself, without any cause (without God).

## Atheist Objection #A2

The Entire Multiverse came into being

- Out of nothing
- By itself
- Without any cause

## Theist Response #A2-3

This Atheist-Conjecture is irrational

- If Nothing exists
- then there is Nothing available to do the creating of Something
- so if Nothing exists, then the only possible state of affairs is for Nothing to always exist

### **Something cannot just pop into existence out of Nothing**

- our uniform experience confirms this to be true;
- and all of science also confirms this to be true.

## Conclusion

It is **Irrational** for an Atheist to insist that

- The Entire Multiverse came into being out of nothing, by itself, without any cause (without God).

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## Atheist Objection #B

Our fine-tuned universe came into existence  
-by birth from a mother universe (Multiverse)

## Theist Response #B-1

Note: the Mother Universe Conjecture is a subset of the Multiverse Conjecture.

So, this “Mother Universe” conjecture is the same as the Multiverse conjecture (see Atheist Objection #C)

So we will discuss this (Mother Universe) in our response to Atheist Objection #C.

## Theist Response #B-2

Where did the mother universe come from?

- There are three possible Atheist answers
- (a) it came out of nothing, with no cause
- (b) it always existed
- (c) it came from a grand-mother universe

## Theist Response #B-2-1

Let us consider each of these in turn

(a) Atheist objection: The mother universe came out of nothing, with no cause

Theist Response:

- This is irrational (see discussion for Atheist objection #A)
- We have already seen that Causation Out of Nothing, with No Cause is irrational (for our physical universe).
- The same logic applies to the mother universe as well

## Atheist Objection #B

Our fine-tuned universe came into existence  
-by birth from a mother universe (Multiverse)

## Theist Response #B-2-2

(b) Atheist objection: The mother universe  
always existed

Theist Response:

- This is irrational
- The mother universe would have to have crossed an infinity of time-instants (just like our universe would have had to if it had always existed)
- It is impossible to cross an infinity by counting (you will never reach infinity no matter how long you count)
- Therefore, it is impossible for the mother universe to have crossed an infinite of time-instants (to get to today from the infinite past)
- Therefore, the mother universe cannot have always existed

## Theist Response #B-2-3

(c) Atheist objection: The mother universe  
came from a grandmother universe

Theist Response:

- Where did the grandmother universe come from?
- Again, there are three atheist responses (#a,b,c) above
- #a and #b have been already shown to be irrational
- #c is the Multiverse (which we will discuss in the next slide).

## Conclusion

It is **irrational** for an Atheist to insist that  
- Our universe came into existence by birth from a mother universe (without God).

The Theist view is more **Rational**  
- That God created the Universe

## Atheist Objection #C,D

Our universe came into existence

- by birth from a Multiverse (our universe had a mother universe that had a mother universe that had a mother etc...)
- The multiverse varied the parameters in the children-universes until one arose that could support life.

## Theist Response #C-0

Philosophically & Metaphysically speaking

- There are two completely different kinds of Multiverses
- (a) The Sequentially Finite Multiverse (SFM)
- (b) The Sequentially Infinite Multiverse (SIM)

(a) Let us consider “a” (SFM).

- The Sequentially Finite Multiverse has a finite number of Ancestor Universes (mother, grand-mother, great-grand-mother... etc). So there could be 2 ancestors (of our universe), or 5 ancestors, or 1000 ancestors, but NOT an infinite number of ancestors.

## Theist Response #C-0

(b) Let us consider “b” (SIM).

- The Sequentially Infinite Multiverse has an Infinite number of Ancestor Universes (mother, grand-mother, great-grand-mother... etc). So there would be an infinite number of ancestors.

So, we will split the Atheist objection into two, one for the Sequentially Finite Multiverse, and one for the Sequentially Infinite Multiverse.

## Atheist Objection #C,D

Our universe came into existence  
-by birth from a Multiverse (our universe had a mother universe that had a mother universe that had a mother etc...)

## Theist Response #C-0

This gives us:

### **Atheist Objection #C:**

Our universe came into existence  
-by birth from a Sequentially **Finite** Multiverse (our universe had a mother universe that had a mother universe that had a mother etc... a finite number of ancestors)

### **Atheist Objection #D:**

Our universe came into existence  
-by birth from a Sequentially **Infinite** Multiverse (our universe had a mother universe that had a mother universe that had a mother etc... a finite number of ancestors)

## Theist Response #C-0

We will address these objections in turn.  
See following slides.

## Atheist Objection #C

Our universe came into existence  
-by birth from a Sequentially **Finite**  
Multiverse (our universe had a mother  
universe that had a mother universe that  
had a mother etc... a finite number of  
them)

## Theist Response #C-1

In a Sequentially Finite Multiverse, there is  
a FINITE series of ancestor universes.  
That means that there is a FIRST mother  
universe, which gave birth to the daughter  
universe, which gave birth to a grand-  
daughter etc...

Where did the FIRST mother universe (come from?)

- There are two possible Atheist answers
- (a) it came out of nothing, with no cause
- (b) it always existed

## Theist Response #C-1

- We have already seen that
- (a) origin out of nothing with no cause is Irrational (see Theist Responses #A1-1, A1-2, A1-3 and #A2-1,A2-2,A2-3)
  - (b) The first universe existing for ever (always existing) is impossible (see Theist Responses #B-2-2)

### Conclusion:

Therefore, it is irrational for an Atheist to insist that

- Our universe came into existence by birth from a Sequentially **Finite** Multiverse (our universe had a mother universe that had a mother universe that had a mother etc... a finite number of them)

The Theist view is more Rational

- That God created the Universe

## Atheist Objection #D

Our universe came into existence  
-by birth from a Sequentially **Infinite**  
Multiverse (our universe had a mother  
universe that had a mother universe that  
had a mother etc... an infinite number of  
them)

## Theist Response #D-1

In a Sequentially **Infinite** Multiverse, there  
is an INFINITE series of ancestor  
universes.

Therefore, to get to our current universe,  
the Sequentially Infinite Multiverse must  
have crossed an Infinite number of  
Ancestor Universes (to get to our  
universe).

## Theist Response #D-1

However, we have already seen that  
(a) It is impossible to cross an infinite  
series by enumeration (by crossing  
through the series one item at a time).  
(see Theist Response #B-2-2)

### **Conclusion:**

Therefore, it is **irrational** for an Atheist to  
insist that

- Our universe came into existence by  
birth from a Sequentially **Infinite**  
Multiverse (our universe had a mother  
universe that had a mother universe that  
had a mother etc... a finite number of  
them)

The Theist view is more **Rational**

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## Atheist Objection #D

Our universe came into existence  
-by birth from a Sequentially **Infinite**  
Multiverse (our universe had a mother  
universe that had a mother universe that  
had a mother etc... an infinite number of  
them)

## Theist Response #D-2

In a Sequentially **Infinite** Multiverse, there  
is an INFINITE series of ancestor  
universes.

Where did this entire series come from?  
-There are two possible Atheist answers  
-(a) it came out of nothing, with no cause  
-(b) it always existed

## Theist Response #D-2

We have already seen that  
(a) origin out of nothing with no cause is  
Irrational (see Theist Responses #A-1,  
A-2, A-3)  
(b) The entire series existing for ever  
(always existing) is impossible (see  
Theist Responses #B-2-2)

### **Conclusion:**

Therefore, it is **irrational** for an Atheist to  
insist that

- Our universe came into existence by  
birth from a Sequentially **Infinite**  
Multiverse (our universe had a mother  
universe that had a mother universe that  
had a mother etc... a finite number of  
them)

The Theist view is more **Rational**

- That God created the Universe

*Conclusion*

# Conclusion

All of the atheist alternatives are seen to be **Irrational**.

The Theist view is more **Rational**  
- That God created the Universe

## Conclusion #1

It is **Irrational** for an Atheist to insist that  
- The First universe (or multiverse) came into being **out of nothing**, by itself, without any cause (without God).

## Conclusion #2

It is **Irrational** for an Atheist to insist that  
- Our universe came into existence by birth from a Sequentially **Finite** Multiverse (our universe had a mother universe that had a mother universe that had a mother etc... a finite number of them)

## Conclusion #3

It is **Irrational** for an Atheist to insist that  
- Our universe came into existence by birth from a Sequentially **Infinite** Multiverse (our universe had a mother universe that had a mother universe that had a mother etc... a finite number of them)

The Theist view is more **Rational**  
- That God created the Universe

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# Contact

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- If you wish to commit your life to Christ
  - and if you need any help with that
  - or in how to grow in your relationship with God