

American Science Affiliation
Pillars of Creation, by Scott Flaig
Presented at MIT- June 1, 2018



PILLARS OF CREATION

HOW FAITH, SCIENCE AND REASON
BRING MEANING TO OUR UNIVERSE

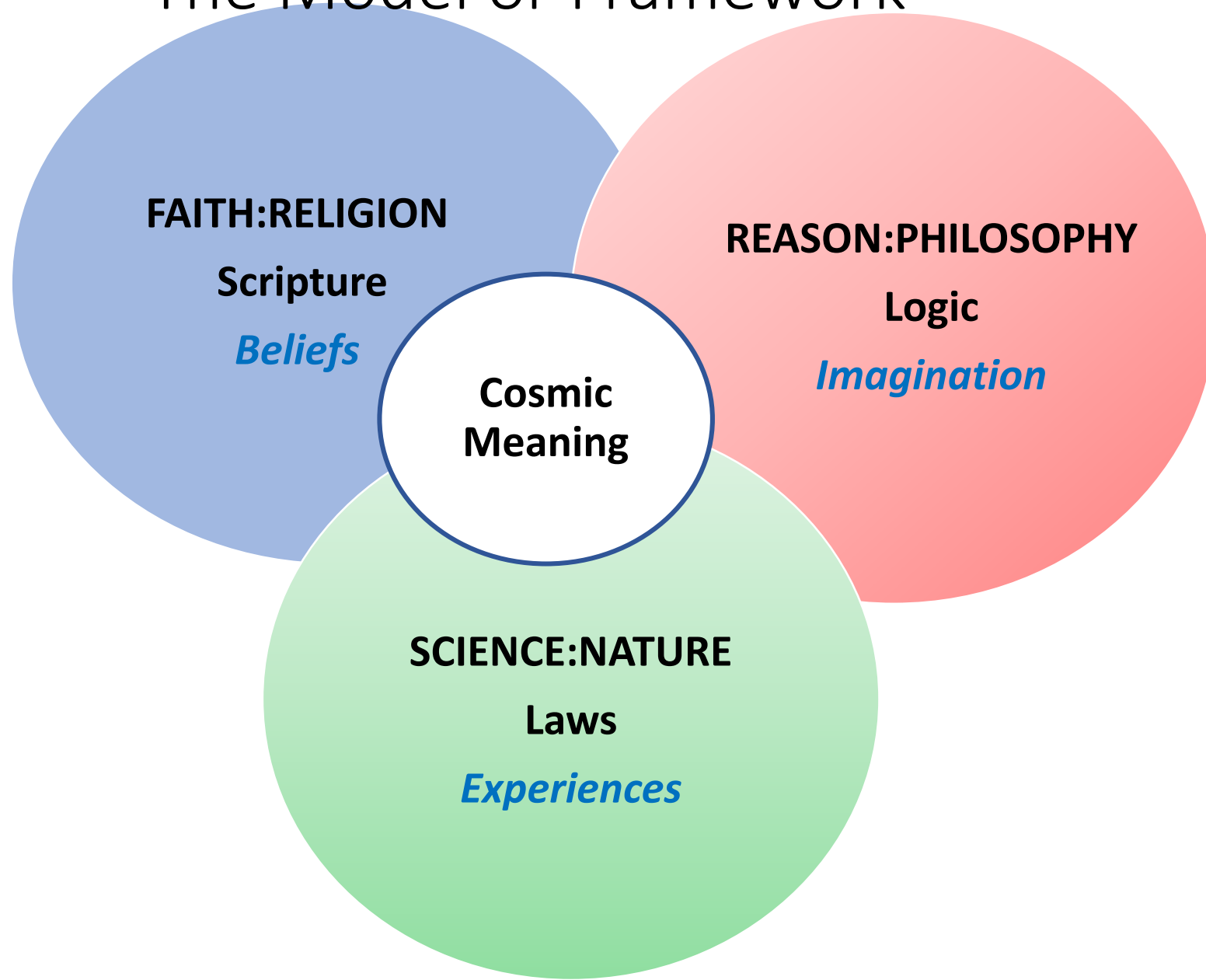
HOLISTIC COSMOLOGY:
A NEW WORLDVIEW

SCOTT FLAIG

- Cosmology: The scientific study of the universe from its beginning to present day and to its ultimate end.
- Holistic Cosmology is a comprehensive study of the universe through the tri-lens of faith, science and reason. Holistic Cosmology is a **methodology or framework** for applying this body of knowledge as it pertains to the meaning and relevance of the universe and its many cosmic mysteries.

Holistic Cosmology: A New World View

The Model or Framework



Holistic : A New Worldview

- “ Holistic” – the whole is greater than its parts
 - Religion – Systematic Theology
 - Science – A Composite Image
 - Philosophy – Inclusive
- “Worldview” – philosophy of life
 - Religion – Religious Pluralism
 - Science – Convergence of evidence
 - Philosophy -“Big” History [14B years, nature, cultural, theology, political]

Holistic Cosmology:

Five Cosmic Mysteries

- 1 - Who or What is at the center of the universe?
- 2 - How will it all end for me, our species, Earth, Sun and even the Universe?
- 3 - What is “time”? Is “time” an illusion?
 - Can we travel through it?
 - Can the past, present and future exist simultaneously?
- 4 - Are we alone? Or one of an infinite number of galactical civilizations?
 - If alien contact were made, will that change our culture, political, scientific, theological or world views? Will contact affirm or challenge my faith?
- 5 - What is a miracle? Are they real or misunderstood?

“Science alone cannot answer these questions.”

Paradigm Shifts ←-----→ Cosmology Models
Four Millenniums of Paradigm Shifts

- From Mythology [Polytheism] to Theology [Monotheism]
- From Geocentric to Heliocentric
- From Creationism to Evolutionism
- From Determinism to Probability
- From Aristotle's Natural Philosophy/ Four Causes [the qualitative study of nature] to Newton's empirical science.
- From Classical Physics to Special and General Relativity
- From the Reformation [theology] to the Scientific Revolution [science] to the Enlightenment [philosophy]
- From Atheism to Humanism
- From a Universe to Multiverse
- From The Theory of "Nothing" [Genesis] to The Theory of Everything[ToE]

Chronology of Major Cosmology Models

Philosophy [P] Theology [T] and Science [S]

2000 BC – 1500 AD

- P/T **Cosmic Egg [Brahmanda Oscillating Universe]-** Hindu
- T **Genesis Creation “Words” -** Moses
- P/T/S **Atomist Universe-** Democritus **First and Final Cause/Geocentric** - Aristotle **Kalam** -Islamic
- P/T/S **Geocentric/Almagest Planetary Motion** - Ptolemy
- P/T/ S **Heliocentric** - Aristarchus
- P/T **The Finite Universe [Biblical]** - Philoponus
- P/T **Teleological Argument [Argument from Design/Anthropic]** - Aquinas- 5 Ways

Chronology of Major Cosmology Models
Philosophy [P] Theology [T] and Science [S]

1500 AD-1800 AD [Age of Enlightenment]

- S **Scientific Revolution** **Heliocentric/Steady state** - Copernicus/Galileo/Kepler/Newton
- T **Protestant Reformation** **Ex nihilo/Sola Scriptural /Geocentric**[Laws>Grace] - Luther/Calvin
- P **Age of Reason** **Natural Philosophy –Causation – Ontological Argument** - Descartes/Bacon

Chronology of Major Cosmology Models
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1800 AD-2000 AD

- S **Evolution** - Darwin
- S Relativity/**Static Universe** - Einstein **Big Bang**- Lemaitre [S/T]
- S **Steady State Universe**- Hoyle+ **Inflation**- Guth **ΛCDM** - Many
- S **Anthropic Model** – Carter, Barrow, Tipler **MV**- Hawking+
- P/T **The Kalam Cosmological Argument**- Craig **The Ekpyrotic Model** – Steinhardt/Turok
- P/T/S **Models of Denial - Atheism**-Russell >> **New Atheism**-Dawkins >> **Humanism**-Epstein
- P/T/S **The Theory of Everything?** – Polkinghorne +Everybody else

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The Theory of Everything according to Science and a little bit of philosophy

- *ToE [SM+GR] will also have wide repercussions, and likely bring about, or contribute to, a shift in our understanding of ourselves and our relationship to the rest of the universe.*

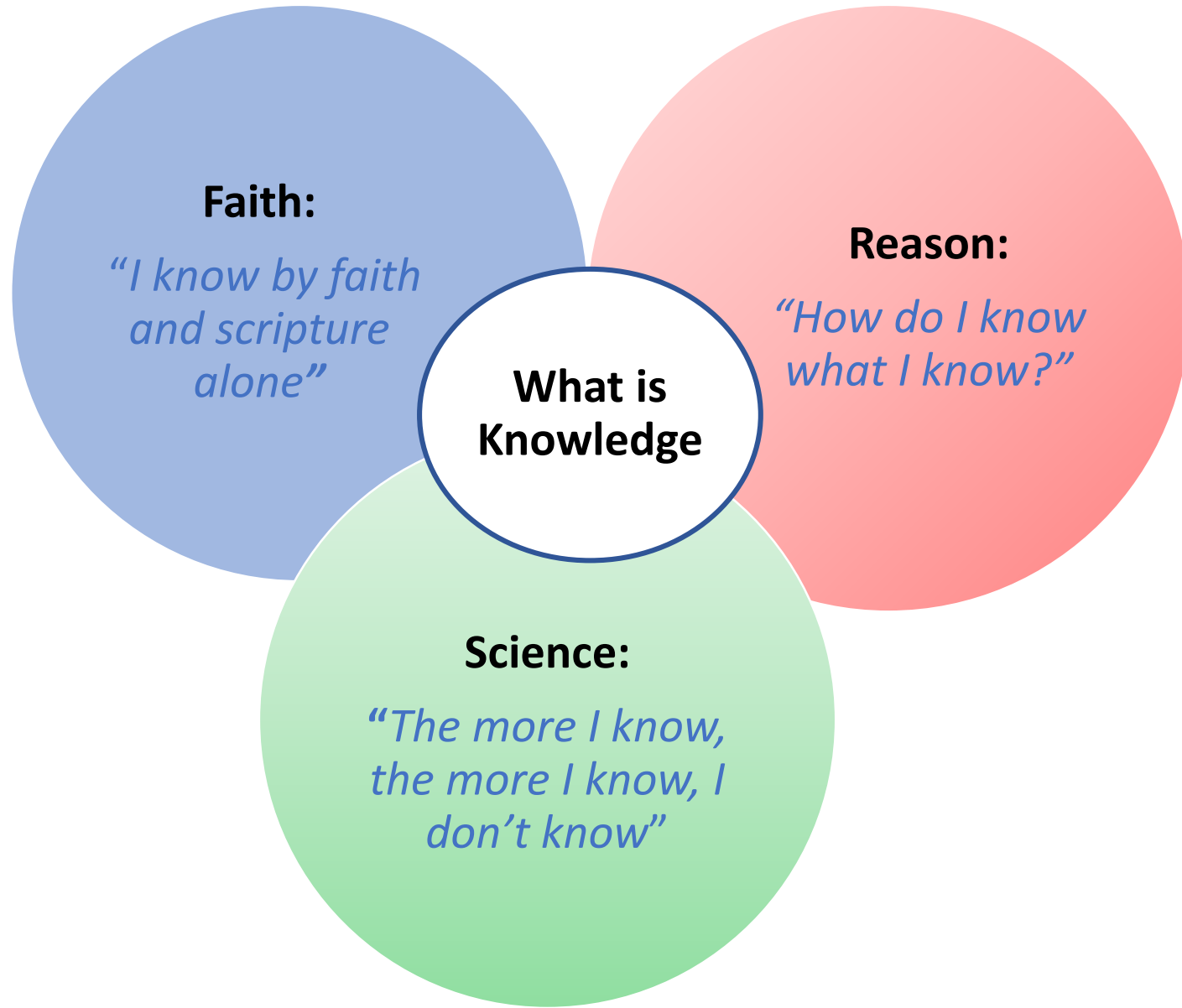
Lee Smolin

"The universe is intelligible. Science is privileged to investigate a universe that is both rationally transparent and rationally beautiful. I actually believe that the greatest Unified Theory of Everything, is provided by the belief in God."

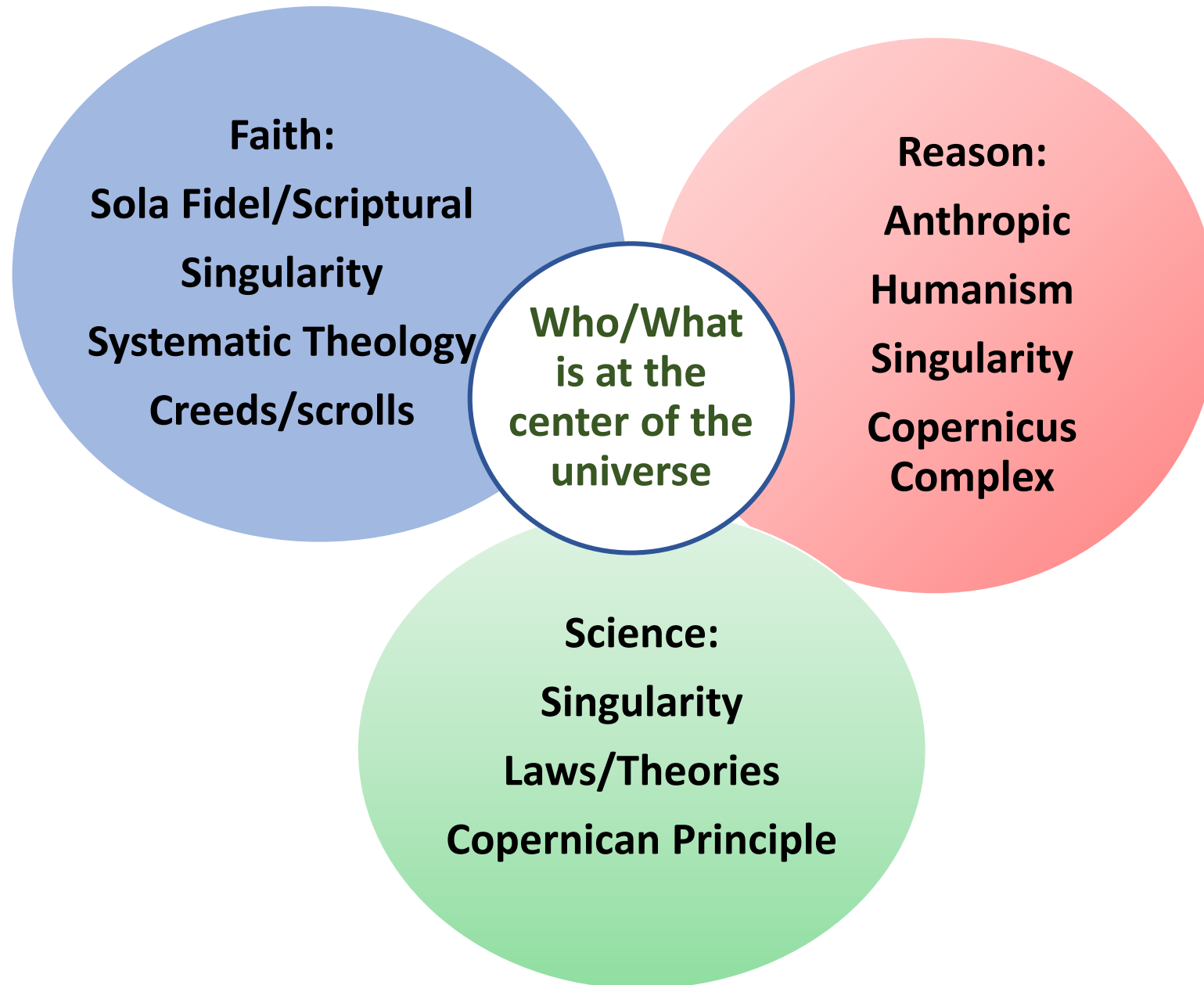
John Polkinghorne

Holistic Cosmology: A New World View

Epistemology- What is Truth



Holistic Cosmology: A New World View-Mystery 1



Mystery 1 – Who or What is at the Center of the Universe?

- **Faith:**

Singularity – The Trinity

Systematic theology - Karl Barth's, Church Dogmatics – God

Apostle Creed – The Trinity

- **Science:**

Singularity- BB, SBH, SMBH

Laws: Earth > Sun > MW Galaxy > None

- **Philosophy:**

Anthropic – mankind - the universe was compelled to evolve intelligence and sapient life

Singularity – the concern that AI manifests not in mankind but in inorganic bodies [androids]

Humanism – Its all about ---!

Holistic Cosmology: Mystery 1

Luther, Locke and Copernicus share their opinion



***Sola Fidel/Scriptural
Theocracy > Son***

**Who/What is
at the Center
of the
Universe?**



Self

***Life, Liberty and pursuit of
happiness***



Copernican Principle

EARTH > SUN

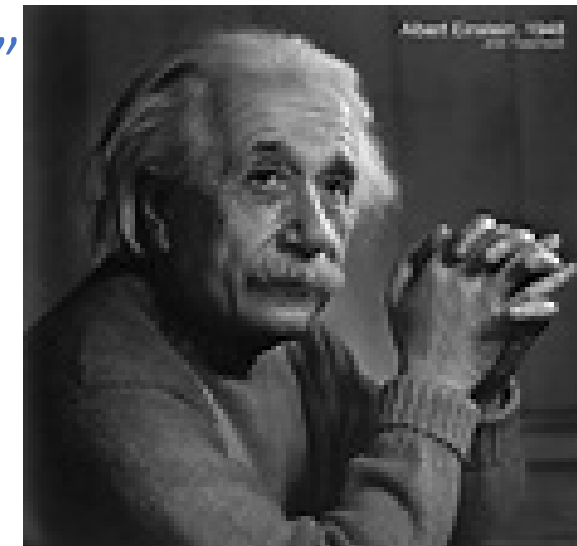
Galileo was asked to explain his views on biblical truths.

“I think in the first place, that it is very pious to say and prudent to affirm; the Holy Bible can never speak the untruth; as long as it is properly understood.”



Einstein was asked whether science and religion conflict.

“Not really, though it depends, of course, on your religious views.”



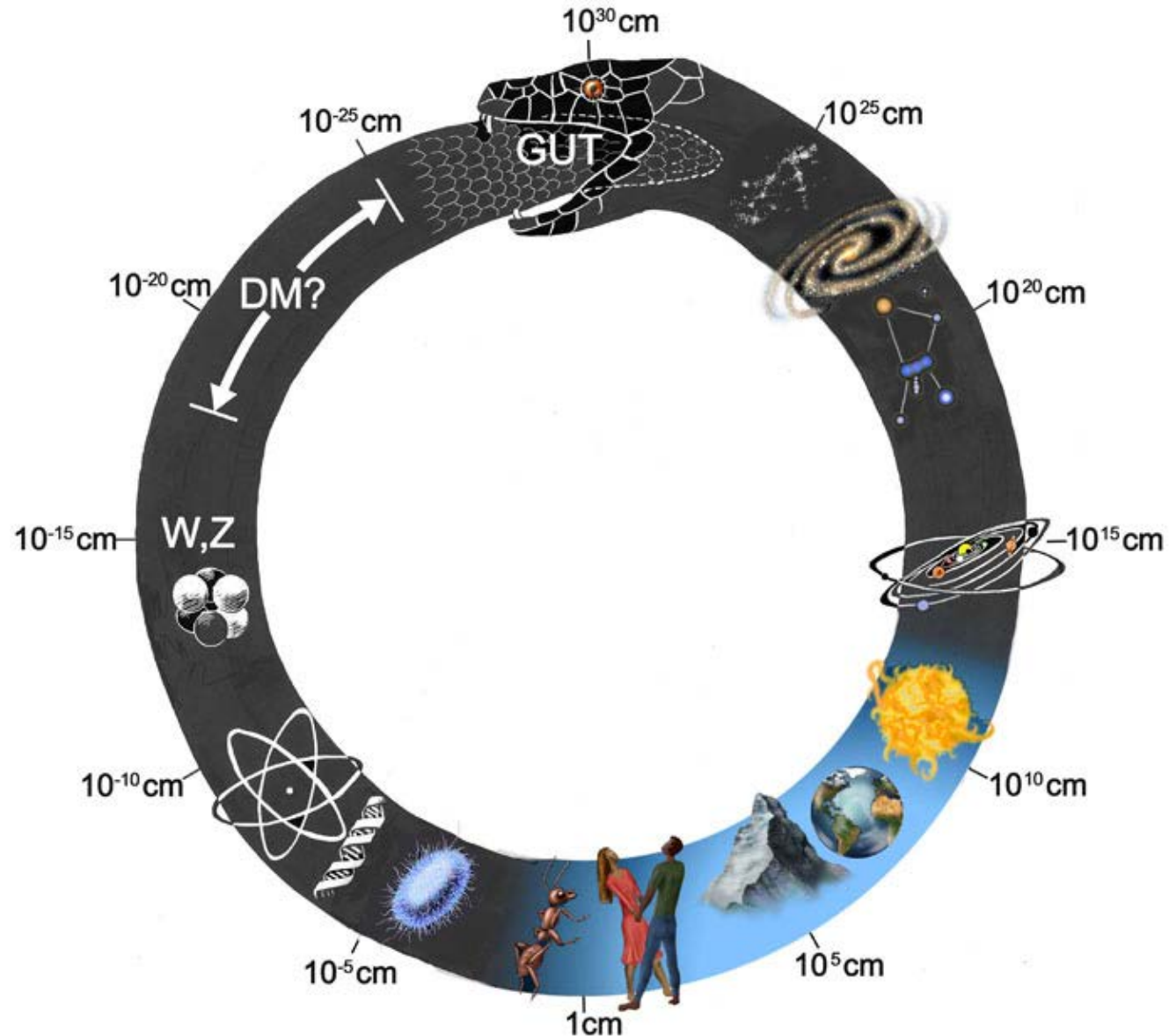


***“ I believe in Christianity
as I believe that the
sun
has risen
not only because I see
it
but because by
it
I see everything else”
C.S.Lewis***



***"I believe in Christianity
as I believe that the
sun/**SON**
has risen, not only because I see
it/**HIM**,
but because, by
it/**Him**,
I see everything else"***
C.S.Lewis/SF

The View from the Center of the Universe- Dr. Joel Primack



The Cosmic Uroboros

An Anthropic View of "Time" from the center of the universe

" We might do better to think of the beginning as being just as unknown as the distant future, and ourselves, as true explorers, moving outward from the center in both directions. In cosmology both the distant past and the distant future are in a real sense ahead of us, the one waiting to be discovered, the other to be created."

A Review of the New Universe and the Human Future- Nancy Abrams and Joel Primack

Holistic Cosmology: A New World View

Mystery 2 – The End /Times



Holistic Cosmology: A New World View:

Mystery 2 – The End/Times

- **Faith:** John 3:16 “For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life.”

Revelations 1:8 “I am the Alpha [the beginning] and the Omega [the end], says the Lord God, who is and who was, and who is to come.”

Science: Us - natural causes

Species – extinction events or **Stupidity**

Earth – sun expansion

Sun – red super giant > white dwarf > black dwarf

Universe – Big Rip or Big Freeze

Big Crunch or Big Bounce

Holistic Cosmology: A New World View

Mystery 2- Philosophical **or Reasons** for the End/Times

- Teleology: There is purpose rather than cause to our end
- Dualism: *“Without dualism there is no soul, no God – the body exists independent from the soul.” A Very Brief Argument for the Existence of the Soul.*

Cold Case Christianity, May,2018 blog by J. Warner Wallace

- Eschatological Verification: *EV is the process whereby a proposition such as “is there an after life?” – If true, you have verifiable truth [epistemology]; but if false, its not falsifiable as the individual will not know its false, because they have no ‘state of being’ [ontological].”*

John Hick, Director of Philosophy of Religion at Cornell and Princeton

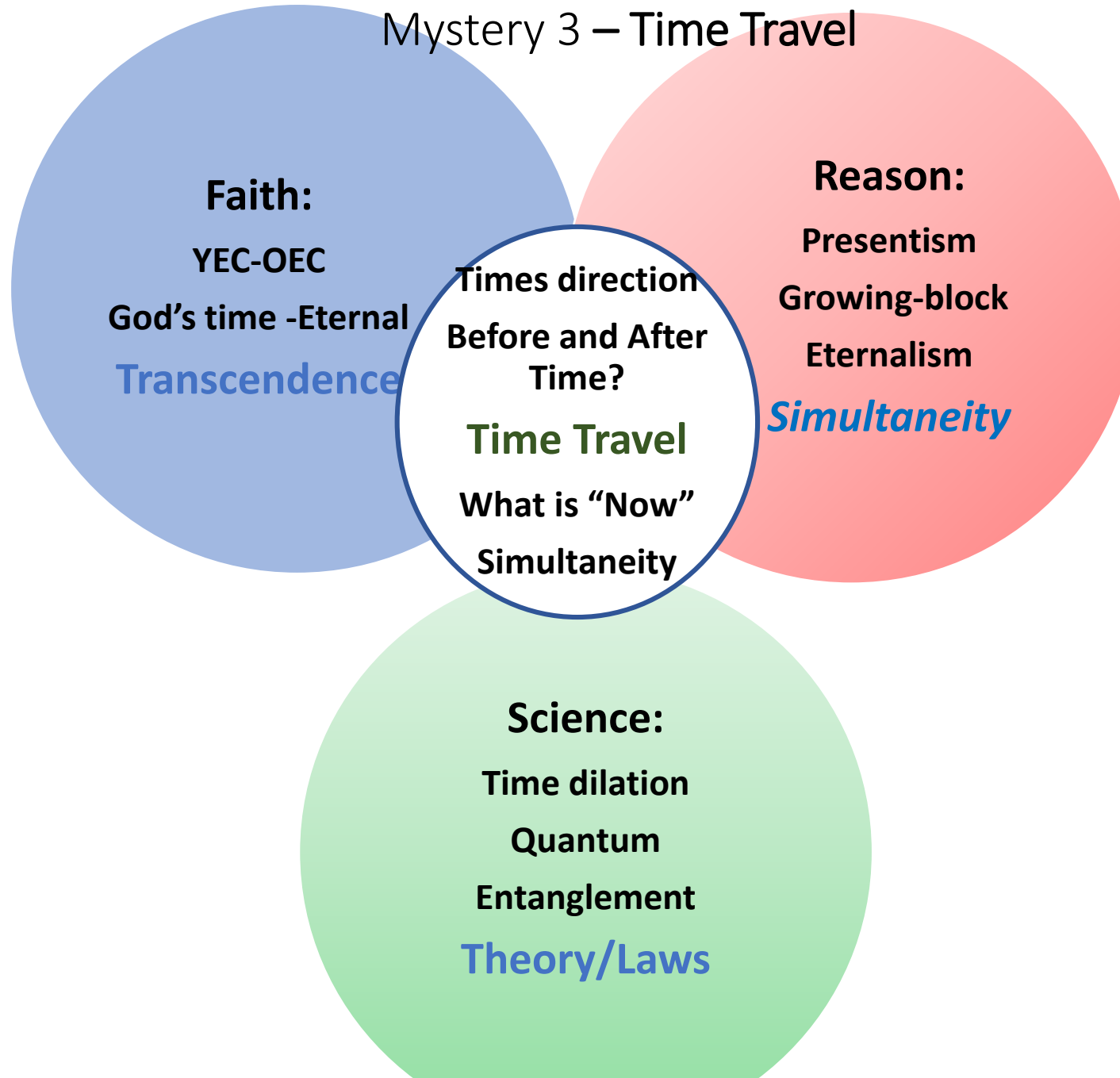
Holistic Cosmology: A New World View

Mystery 3- Time Travel

"Time travel is easy. It's just a technology problem" – Sean Carroll



Cosmology: A New World View: Mystery 3 – Time Travel



Time Travel -“And the answer is”

- **Traveling back in time- “Its only a technology problem [worm hole].”**

The past can’t be changed anyway, so, why bother!

- **If you do go backward or forward, who builds the receiving machine on the other end?**
- **Can I get back to where and when I left? I don’t think so.**
- **Traveling forward in time – theoretically, yes if you can travel>>SOL; and what about your return? To What? When? Hawking’s posting**
- **Time travel is also conditioned on whether “eternalism” is real; that is, that the past, present and future exist simultaneously; that objects coexist across time**
- **“But, philosophy allows your *imagination* to travel through time without the limitations of technology.”**

What is Time?

- Before the Beginning [past]

Time at Creation: “Time wasn’t around before time. Something may have been around but it wasn’t time.”

Anonymous

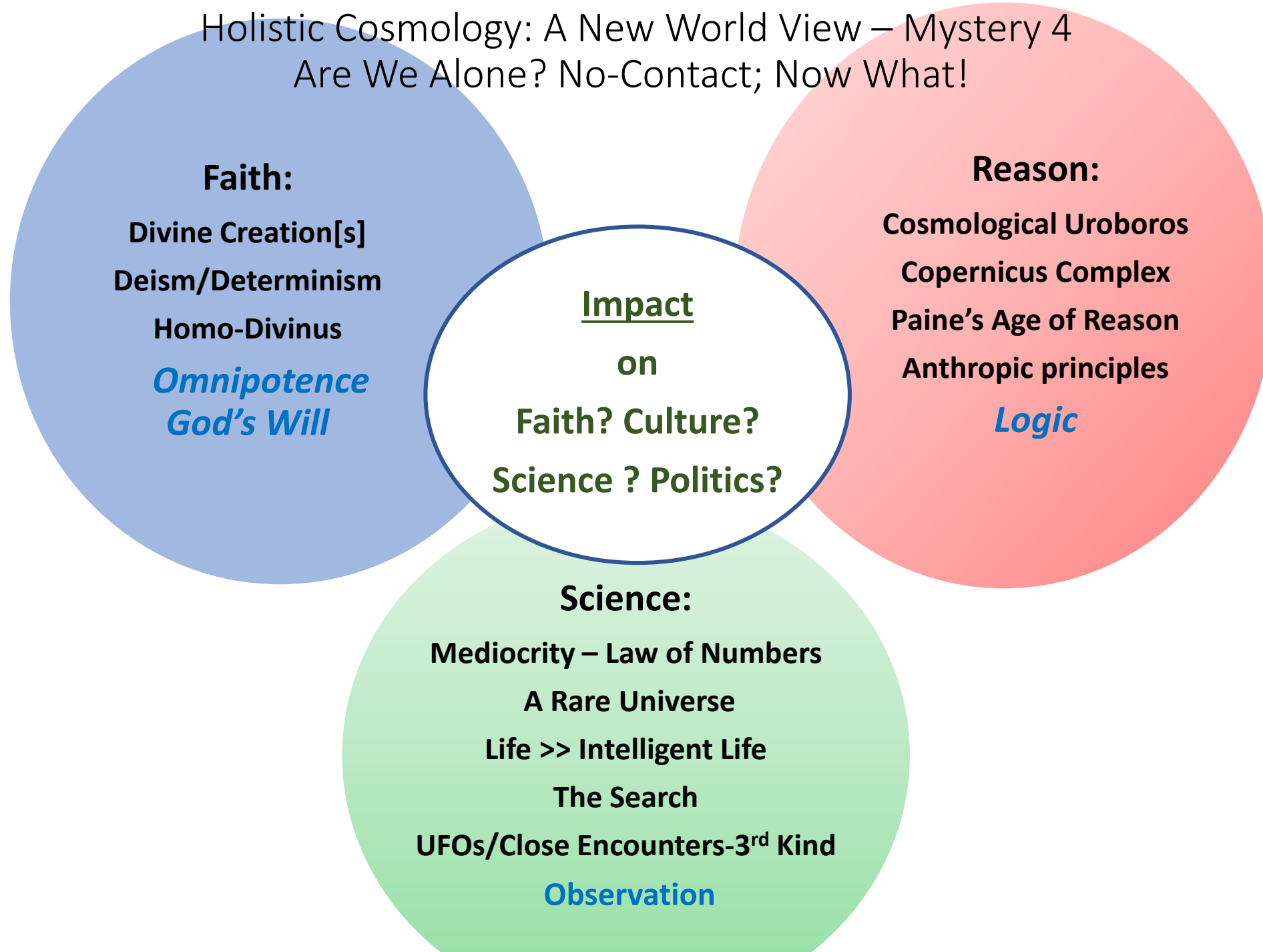
- Into the Future

“Yesterday, I moved into the future and here I am.”

Sean Carroll

Holistic Cosmology: A New World View – Mystery 4

Are We Alone? No-Contact; Now What!



Mystery 4- Are We Alone?

- **Faith:** Divine Creation [s] – **Yes/No** - what was/is His plan?

Omnipotence – **Yes/No** - God's will

Deism/Determinism – **No**, we are not alone -His laws are pervasive

Homo-Divinus the “complete” human: **Yes**

“the only specie with a soul that can *experience* God”

Special note; NASA grant of \$1M to the Center of Theological Inquiry [CTI] , Religious Implications of Extraterrestrial Life – “ to foster theology’s dialogue with astrobiology on its societal implications”

Mystery 4 – Are We Alone?

Reason: Cosmological Uroboros/ Copernicus Complex –**Yes**, we are alone. We are special- indeed! Life-not so much, perhaps; but intelligent, conscious, cognitive and communicative life-- with a soul, is special!

Paine's Age of Reason :Philosophical Deism – **No** - nature will run its course – no Divine intervention----- Reason replaces Revelation
“doesn't it just make sense that other civilizations exist.”

Anthropic Reasoning: **No** -*“The universe is what it is, because as observers, we experience it. If we were not here, by definition, the universe would not have had the natural laws as we know them, therefore the universe could not exist either.” SF*

Mystery 4- Are We Alone?

- **Science:**

Mediocrity- The Drake Equation – **No** -a new assumption/discovery every day

Adam Frank, Professor of astrophysics, University of Rochester

“Estimates” 10^{22} habitable earths in the universe offset by 10^{-3} or 10^{-30} or 10^{-50} because of:

- | | |
|------------------------------|-------------------------|
| 1- inorganic material > life | 2- evolution > Bs years |
| 3- life > intelligent life | 4- extinction events |

“We have no idea – except we do know its = 1+”

A Rare Universe [10^{200}]– The Fermi Paradox- **Yes** - Where are they!

“Absence of evidence is not evidence of absence.”

The Search: SETI, METI, Exoplanets, Telescopes^x **No**

UFOs/ Close Encounters of the 3rd kind - **No**

Contact- Now What? Why would ET make contact?
Are we still special? More questions than answers!

- World Reaction
 - Protocols across the world governments for affirming contact
 - National sovereignty?
 - Are we safe! – ET's motivation and agenda?
- Science - A transfer of technology!!
 - medicine, space travel, physics, chemistry
 - Are there other civilizations? Where?
 - What is their biology? Their home planet environment?

Contact- Now What? Why would ET make contact?
Are we still special? More questions than answers!

- **Philosophy**

- ET's appearance and compatibility with our specie – Can we live together?

- **Theology** –What about sin? Do they know Jesus? What is ET's theology?

- Are we still special?

- Ted Peters, Professor Emeritus at Pacific Lutheran Theological Seminary-
Astrobiology

- “*we are as special to God as all our children are special to us*”

- Religions are expecting ET: New Atheism-55%,
Muslims-44%, Jews- 37%,
Gen'l Christian denominations- 32-37%,
Baptists- 29%, Evangelicals and YEC- >0%

CONTACT--Now What? Who will Represent Earth?

- Trump



- Sigourney Weaver [Alien 1- 4]



- William Shatner



- Jodie Foster of Contact- “I’m listening”



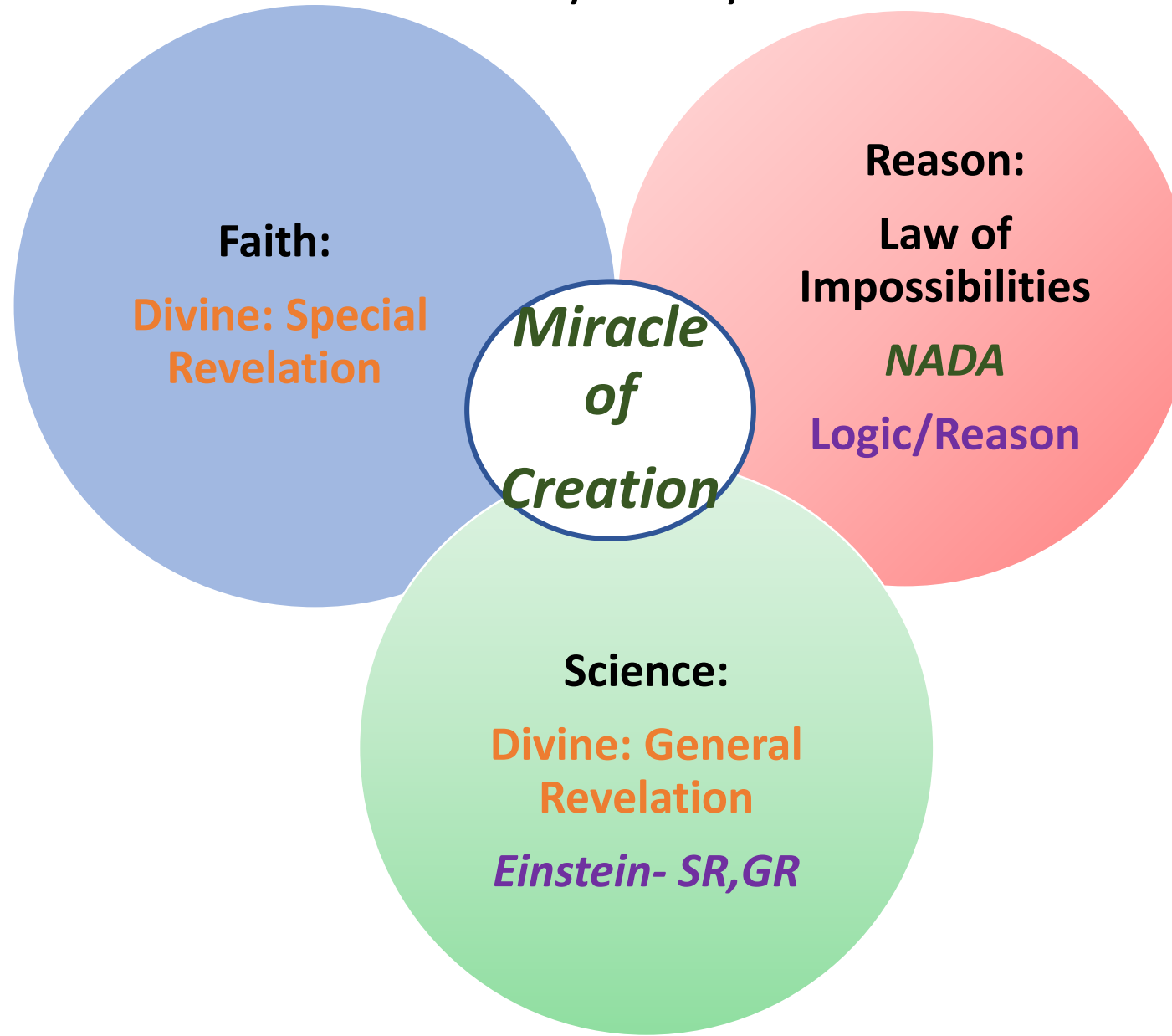
- Neil deGrasse Tyson



Leslie Wickman PhD- Human Factors and Biomechanics
Masters in astronautical engineering
Corporate Astronaut- Humanitarian –Apologist – Ordained Minister
NASA /ISS/Hubble



Holistic Cosmology: A New World View: Miracles? Mystery 5 - **Creation**



Creation from Nothing: Hawking, Moses, Lewis and Aquinas Agree

Hawking: *“Spontaneous creation is the reason there is something rather than nothing; why the universe exists and why we exist.”*

Moses: *Genesis 1:1-2 "God created the heavens and the earth. Now the earth was formless and empty.”*

C.S. Lewis: *"There was never a time when nothing existed; otherwise nothing would exist, but now I believe that no longer.”*

Saint Thomas Aquinas: *“All effects are the result of cause, going back to the beginning of time, where there must be a creator, who exists outside of time and space[nothing].”*

And the answer is – “It just doesn’t matter.”

“By far, the greatest miracle ever is the universe itself.”

Eric Metaxas, Miracles

New Telescopes and Collider: '2018 -'2025 " *Can You Imagine* "

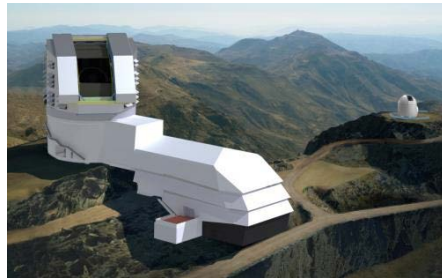
- The James Webb-2020 – 6X more collecting area than Hubble



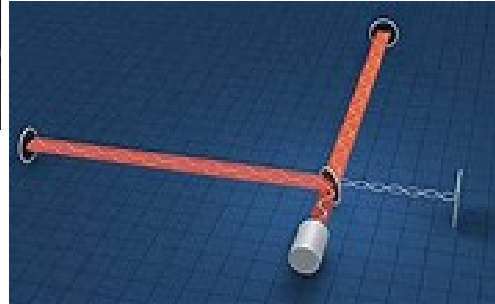
- ALMA replaces Arecibo and has 66 -39 ft radio antennas



- LSST -2020



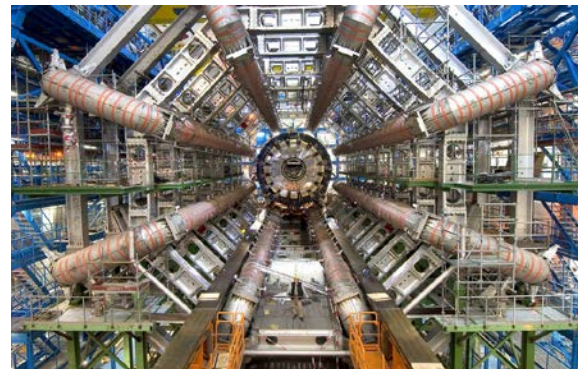
- New Gravity Wave scope-LIGO



- TESS -2018

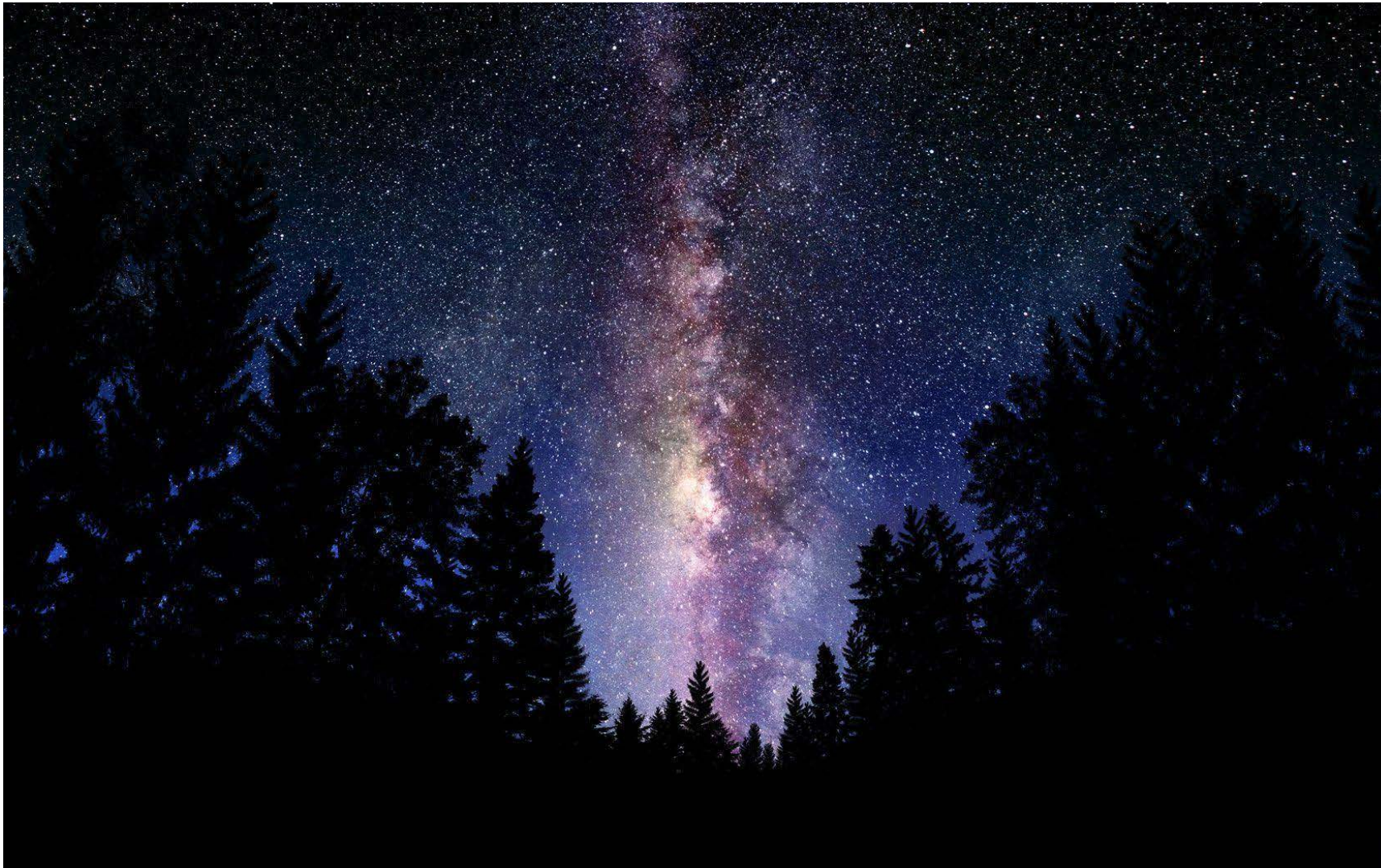


- LHC2 - 2X the energy level-2015



- *"within the next decade, we may be able to see/witness the beginning of time and space"*

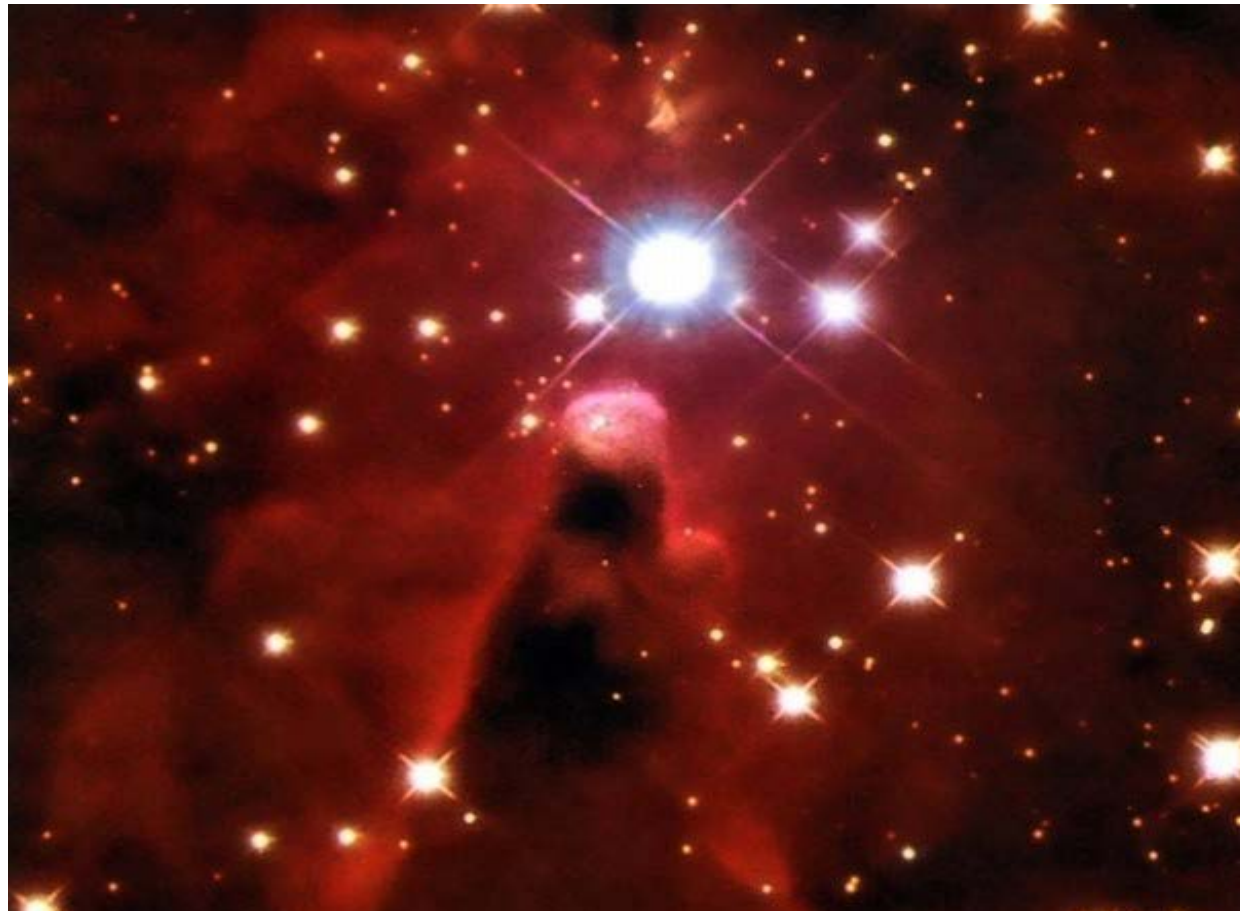
When observing the stars, do you say, “Oh My”
OR
When, experiencing the heavens, do you say, “Oh, My God”



KD47887 in the Cone Nebula

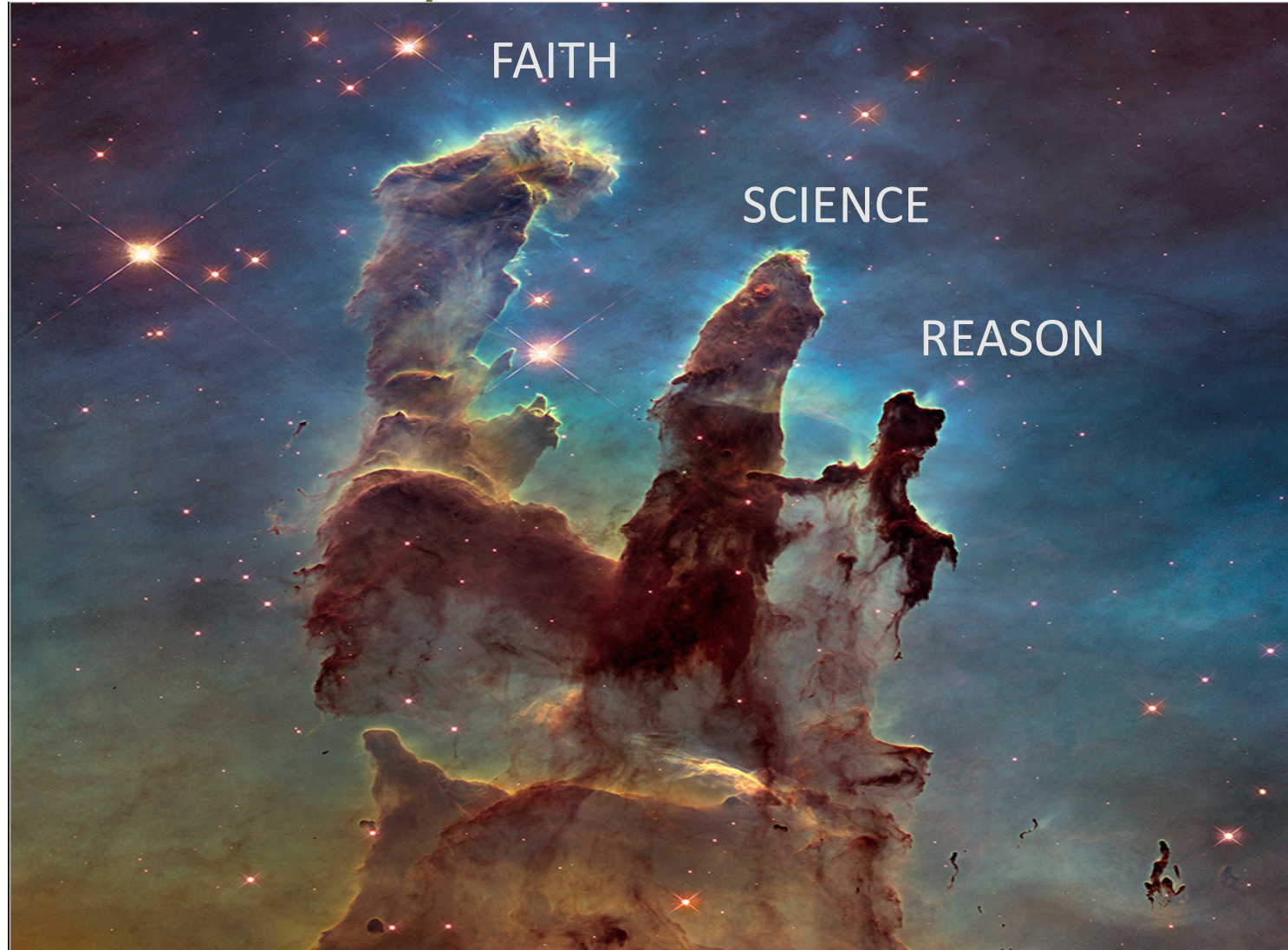
Acts 7:49 " Heaven is My throne, and the earth is my footstool. What kind of house will you build for me? Where will my resting place be? Has not my hand made all these things?"

THE THRONE OF GOD



Eagle Nebula M16 Psalm 33: 4,6

“For the word of God is right and true; he is faithful in all he does.
By the word of the Lord the heavens were made, their starry host
by the breath of his mouth.”



Conclusion: Holistic Cosmology

- “God will reveal his Theory of Everything, one miracle at a time.”

The Pillars of Creation: Faith, Science and Reason Bring Meaning to Our Universe

