REASONS TO BELIEVE

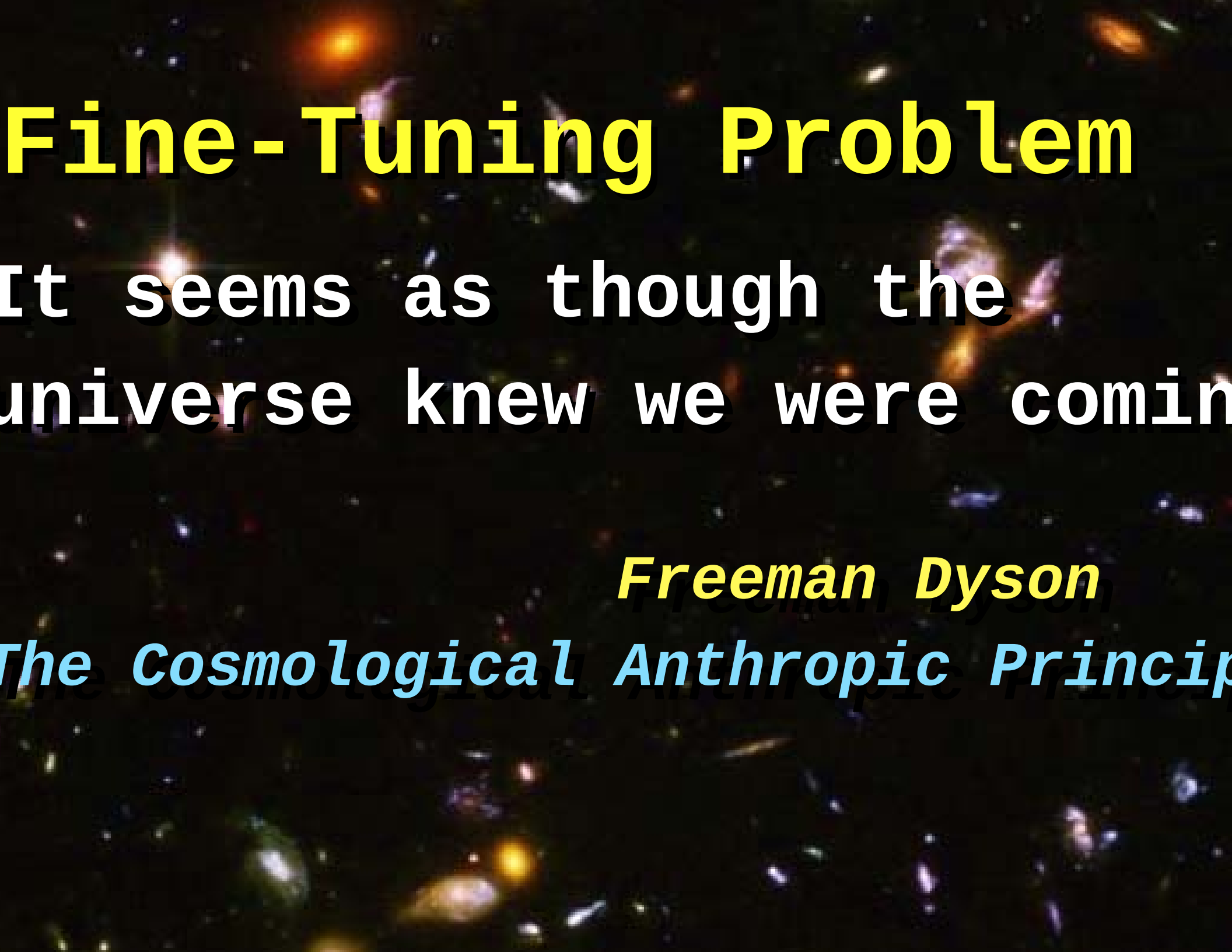
www.reasons.org


Designed for Life
God or the Multiverse?

Fine-Tuning Problem

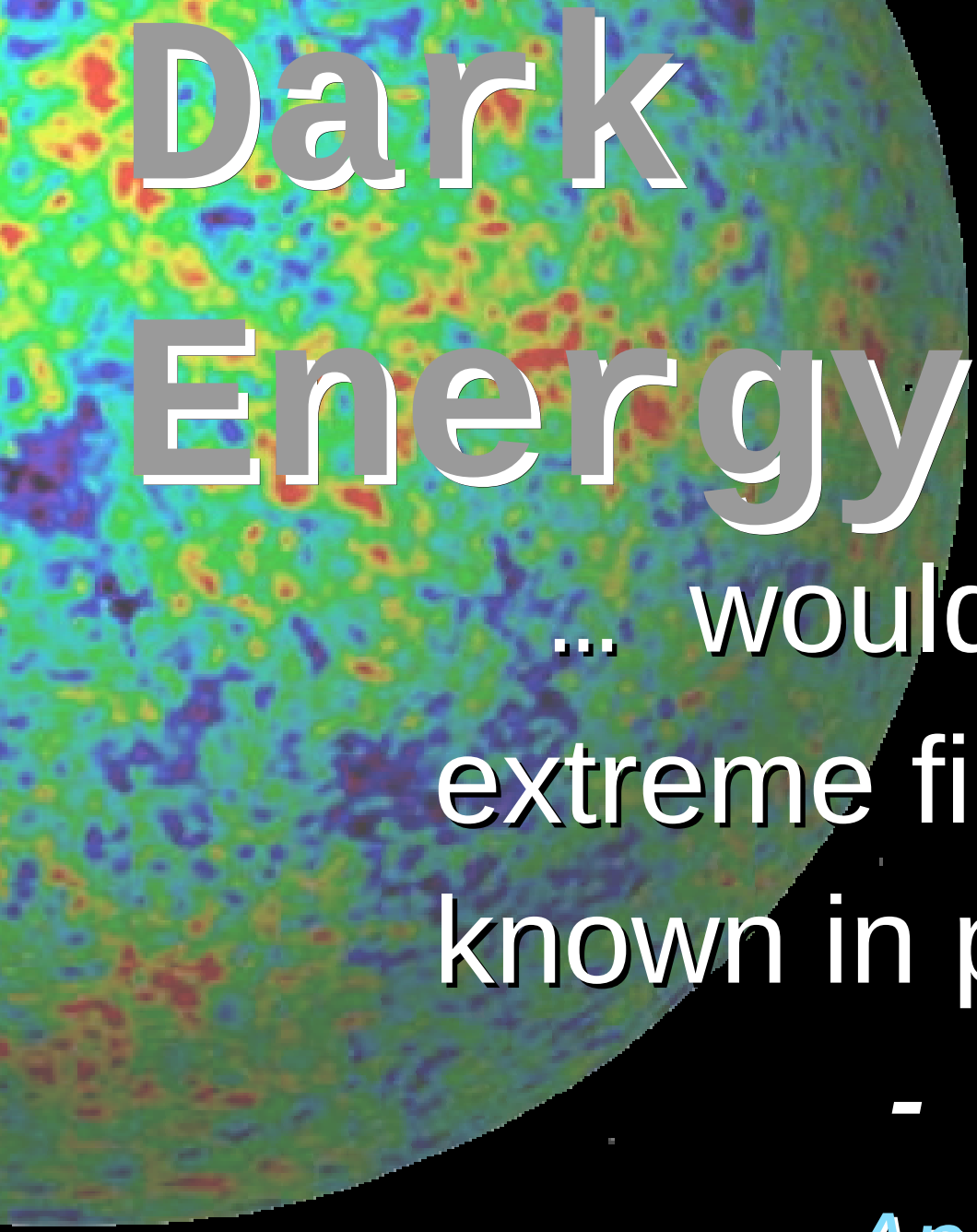
The impression of design is overwhelming.

– *Paul Davies*
The Cosmic Blueprint


Fine-Tuning Problem
It seems as though the
universe knew we were comin
Freeman Dyson
The Cosmological Anthropic Princip

A Severe Problem

The required fine-tuning is extreme.

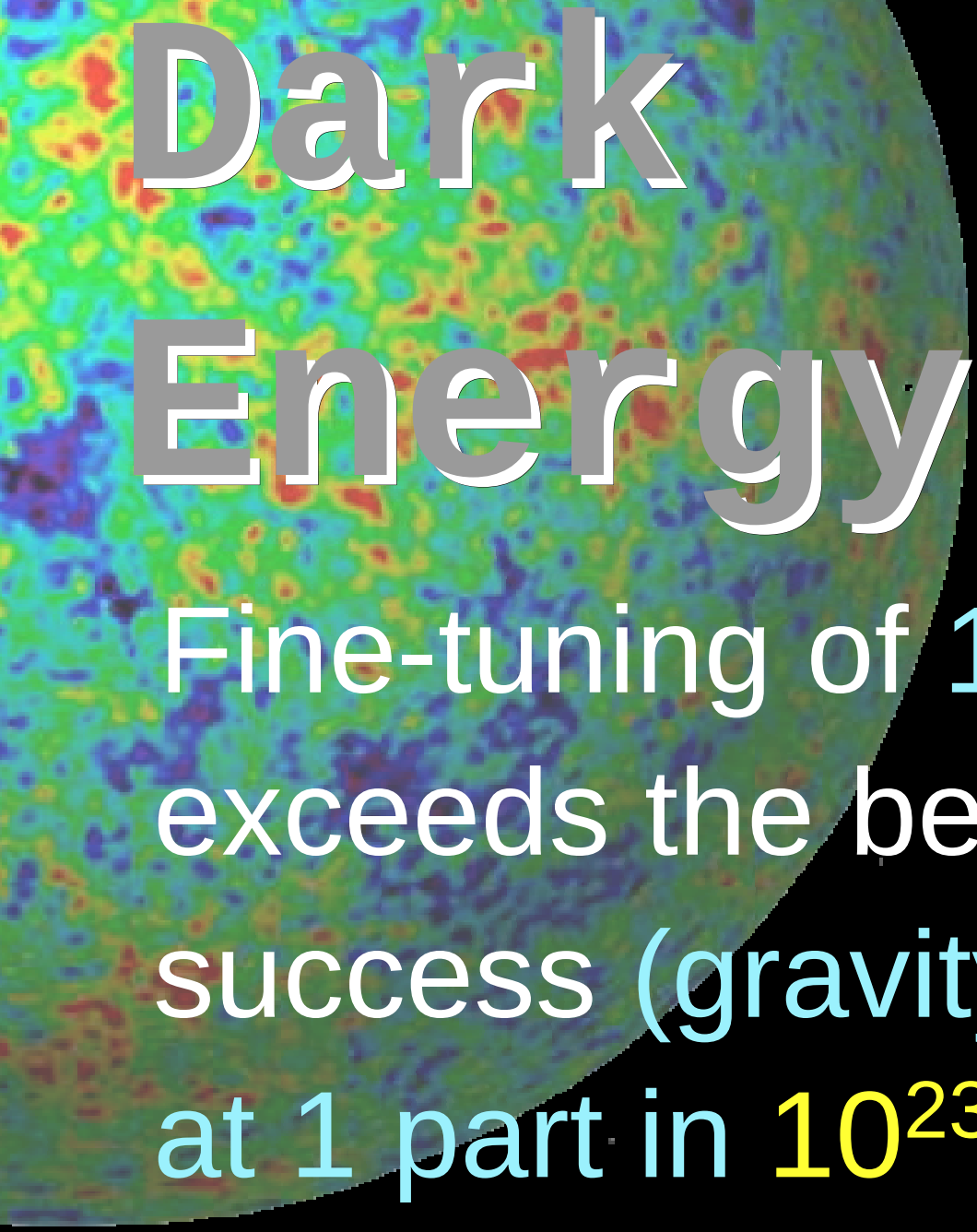


Dark Energy

... would involve the most extreme fine-tuning problem known in physics.

- *Lawrence Krauss*

ApJ 501 (1998): 461



Dark Energy

Fine-tuning of 1 part in 10^{120} far exceeds the best human design success (gravity wave telescopes at 1 part in 10^{23})

A Growing Problem

The evidence for cosmic design for humanity's specific benefit is increasing exponentially

smic Design for C-Li

. gravitational force constant

. strong nuclear force const.

. weak nuclear force const.

. electromagnetic force const.

. e-m to grav. force ratio

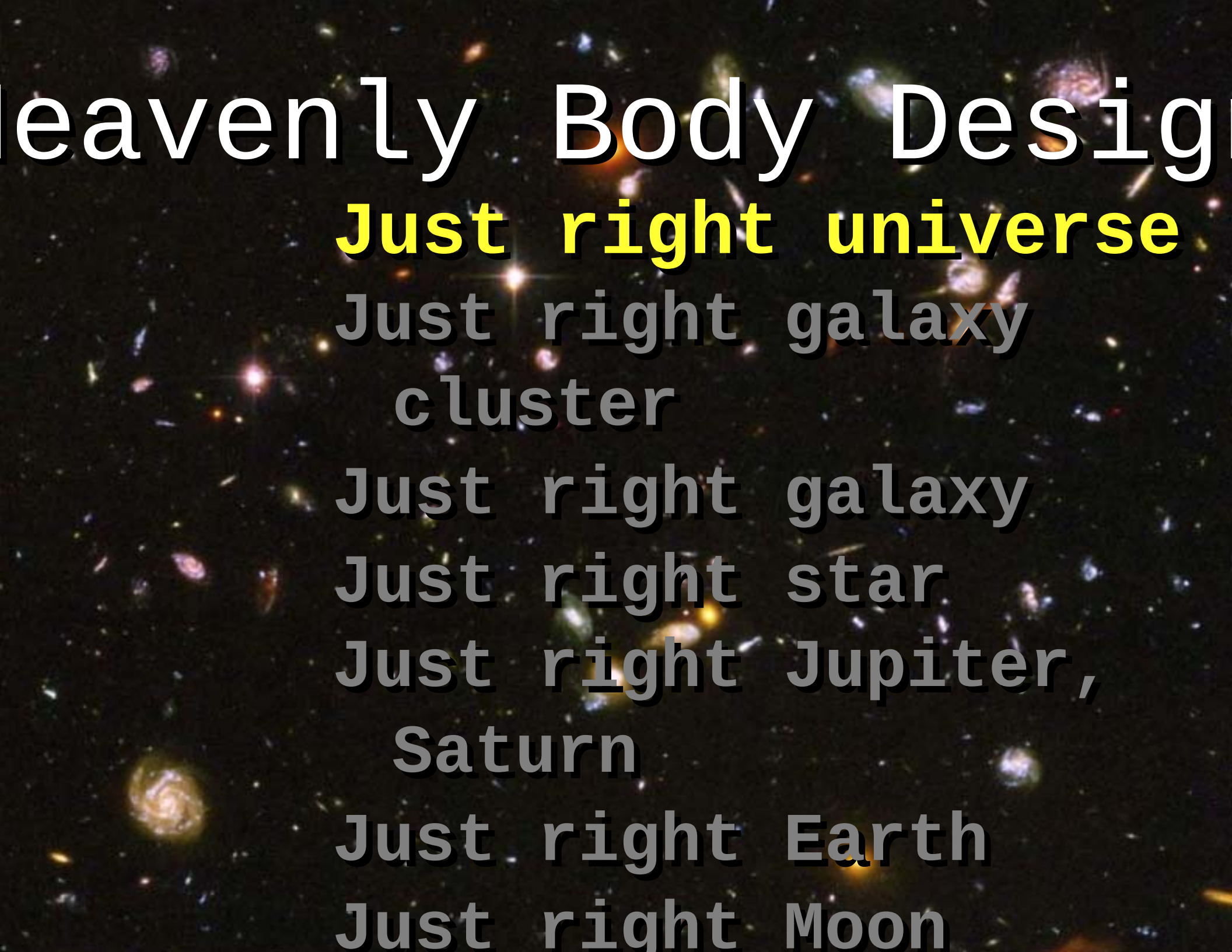
smic Design for C-Li

1. proton-to-electron number rat
1. electron-to-proton mass ratio
1. velocity of light
1. cosmic expansion rate
0. cosmic entropy level

smic Design for C-Li

date	# known features
1991	17
1995	26
2001	35
2004	86
2006	140

See reasons.org for features & citations.


leavenly Body Desig
Just right universe
Just right galaxy cluster
Just right galaxy
Just right star
Just right Jupiter, Saturn
Just right Earth
Just right Moon

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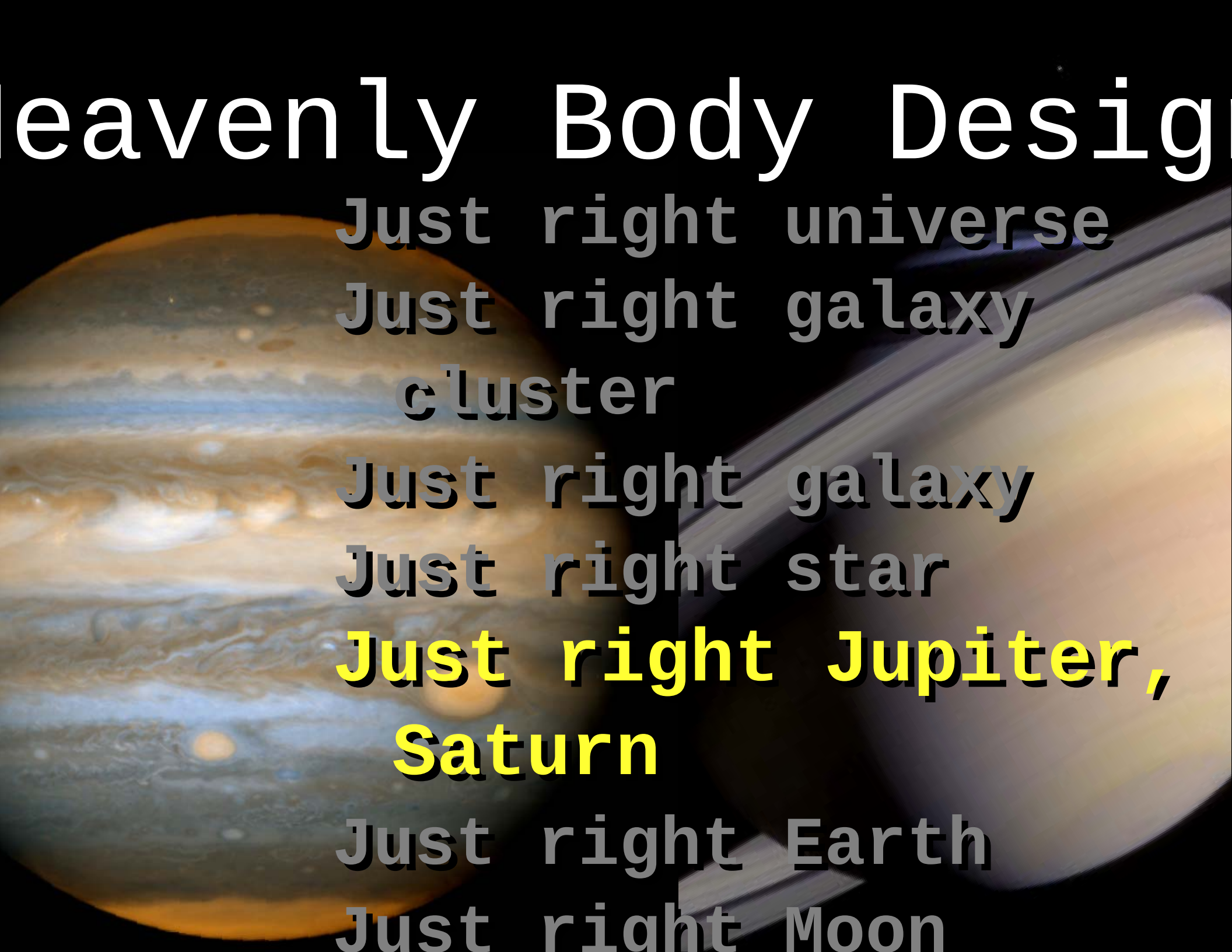
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Heavenly Body Design

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Just right galaxy cluster

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Total Fine-Tuning for Life

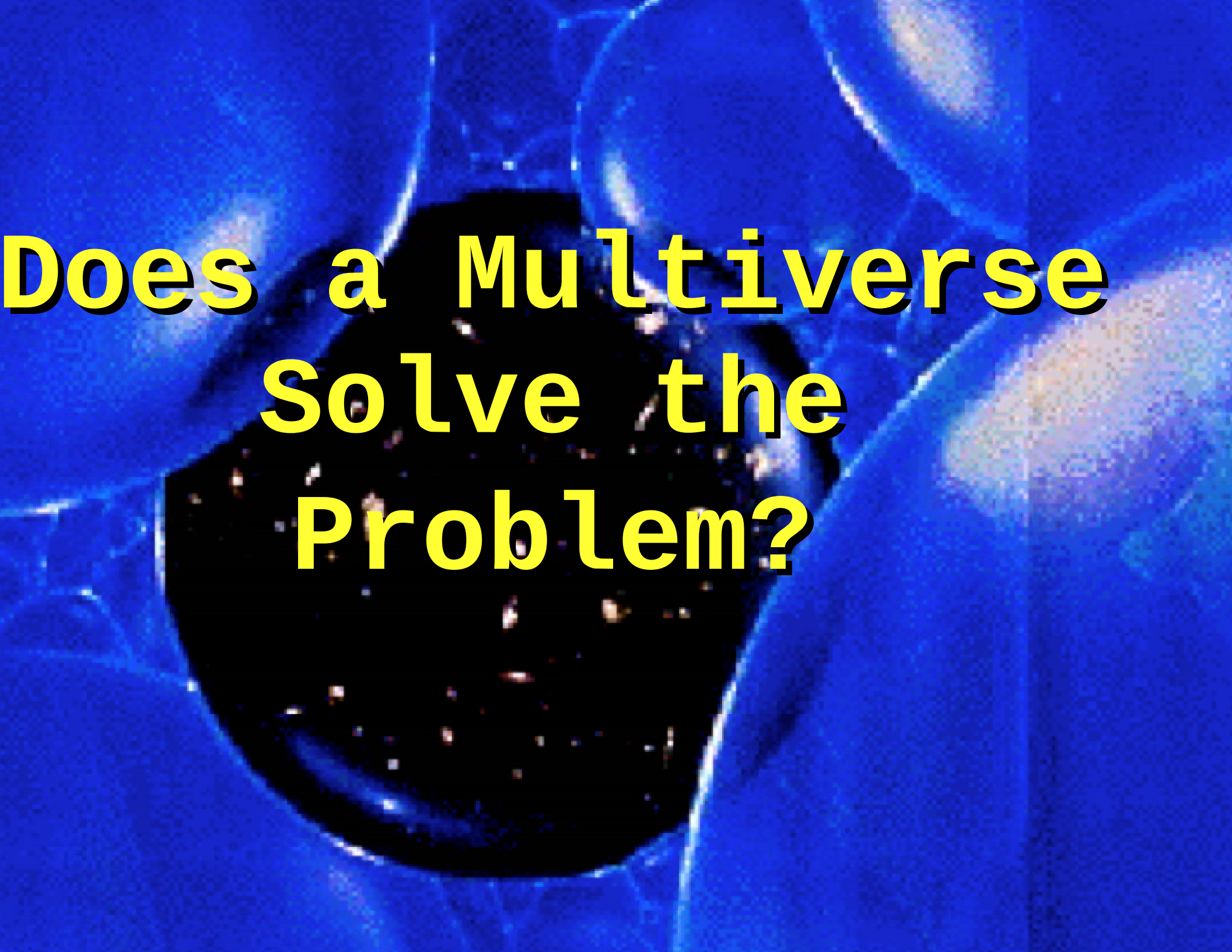
date	# features	probability
1995	41	10^{-31}
2000	128	10^{-144}
2002	202	10^{-217}
2004	322	10^{-282}
2006	676	10^{-556} NASA

See reasons.org for features & citations.

Bacteria vs. Humans

life form	# features	probability
90-day bacteria	501	10^{-311}
3-Gyr bacteria	676	10^{-556}
humans	824	10^{-1050} Hugh Ross

See reasons.org for features & citations.

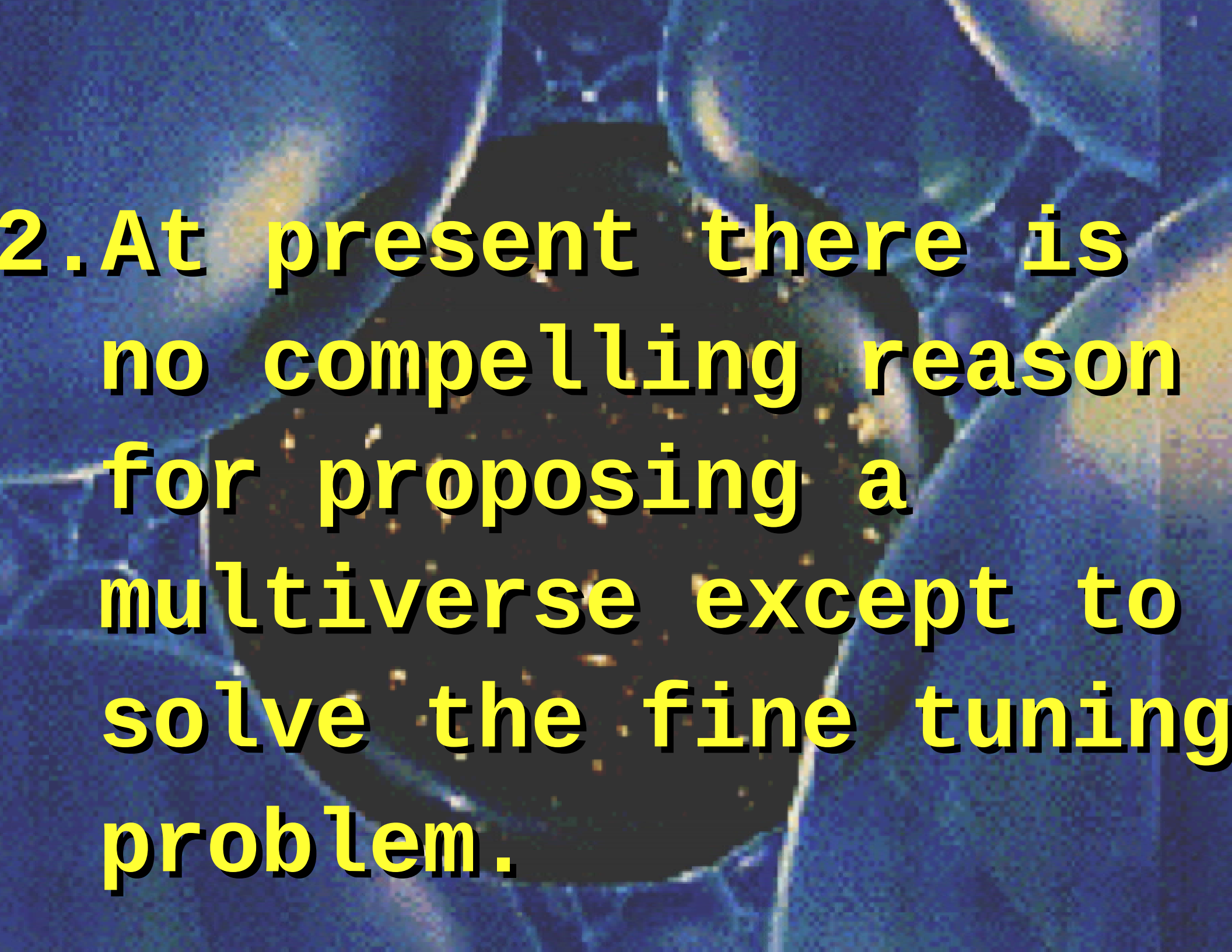

Does a Multiverse
Solve the
Problem?

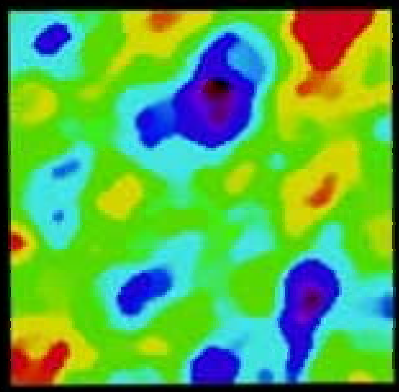
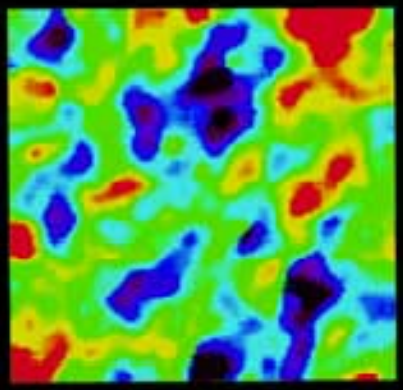
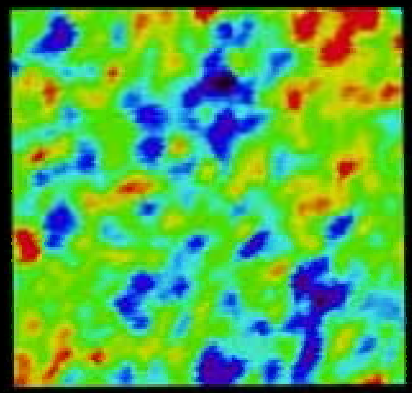
Multiverse Loophole?

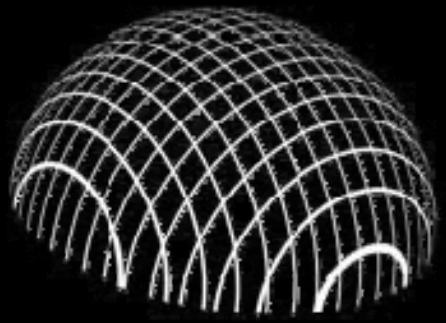
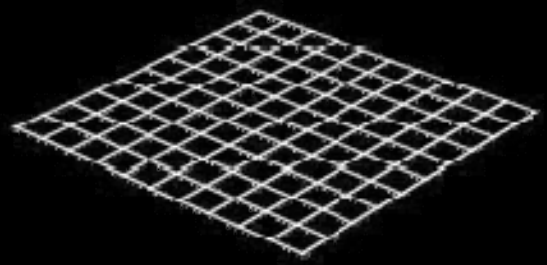
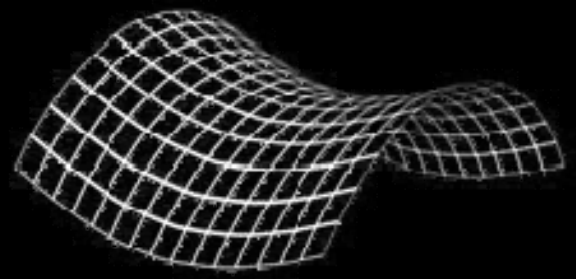
- Many speculate that a multiverse theory can explain cosmic fine-tuning without invoking God.
- We live in the particular universe (or Hubble volume) that is fine-tuned to allow intelligent life to exist.

Some Issues to Consider

1. It's not new!
   The multiverse, in one form, was present in early Christian thinking.

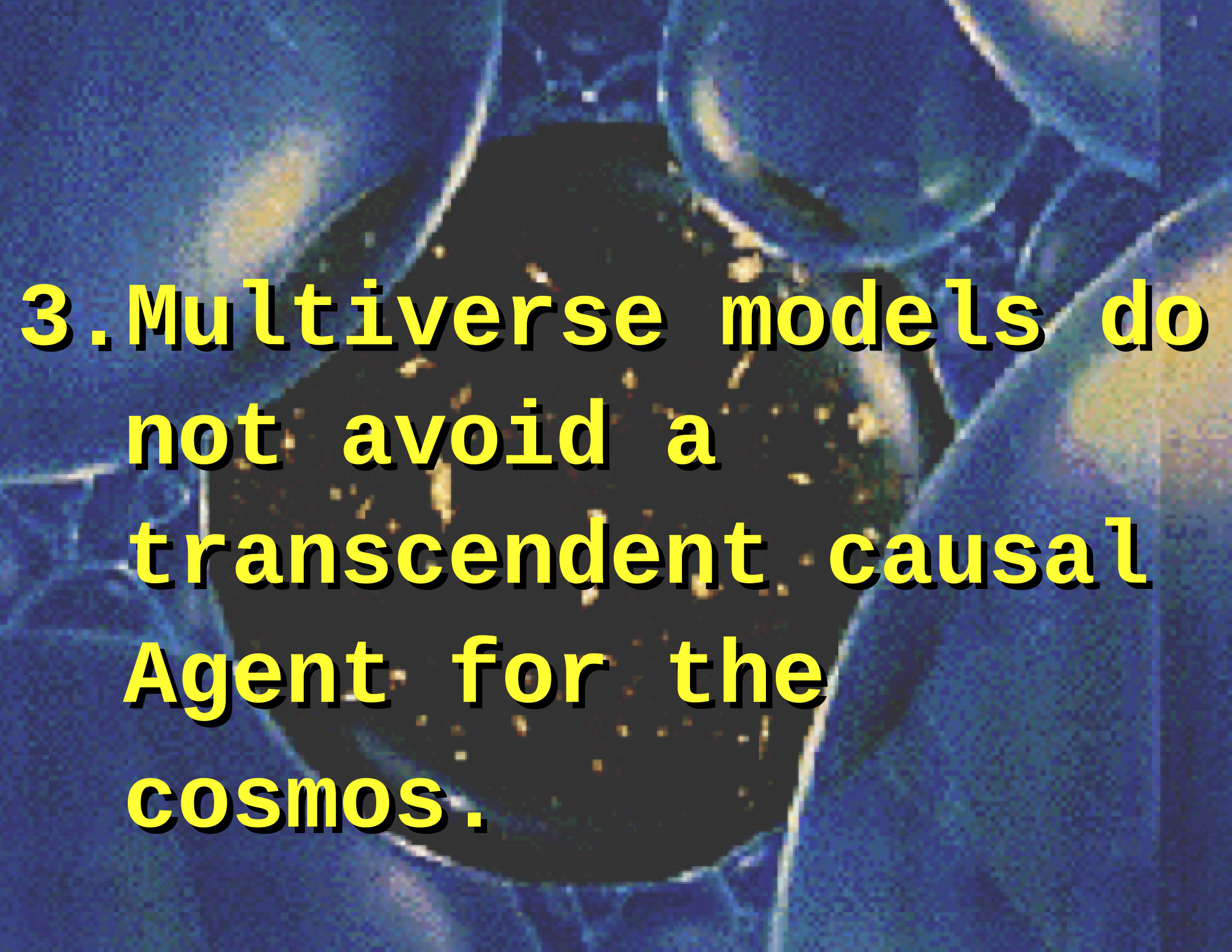

2.At present there is no compelling reason for proposing a multiverse except to solve the fine tuning problem.

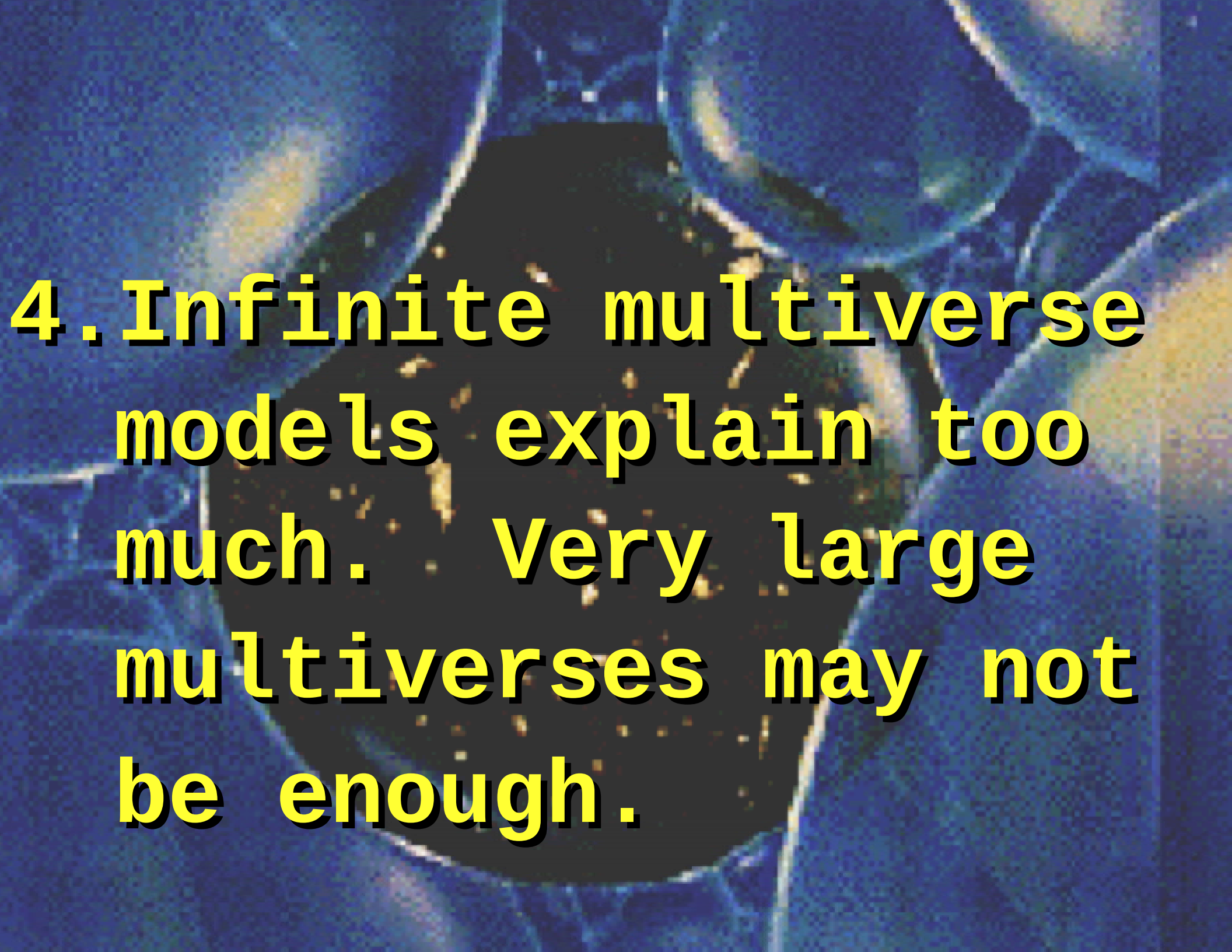




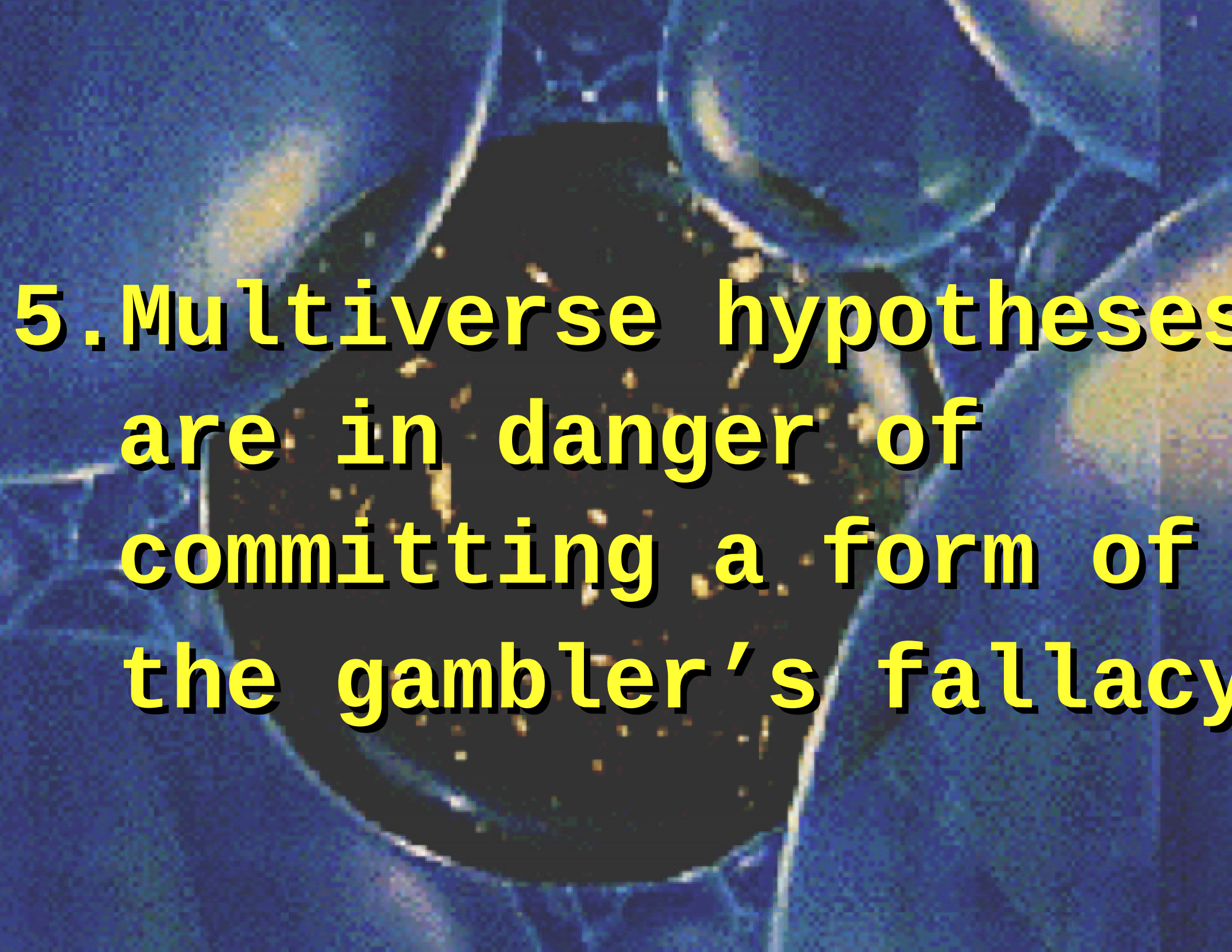




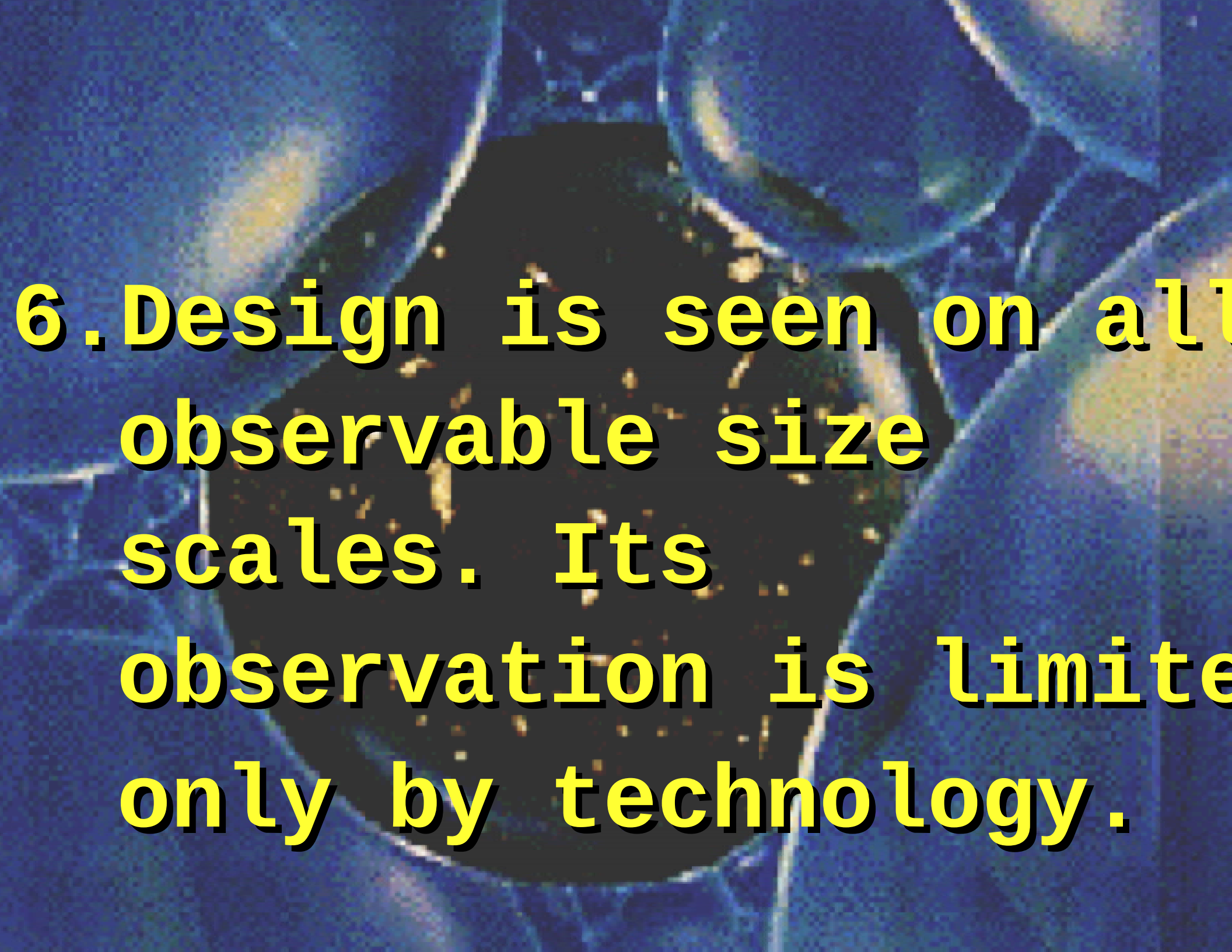
closed **flat** **open**

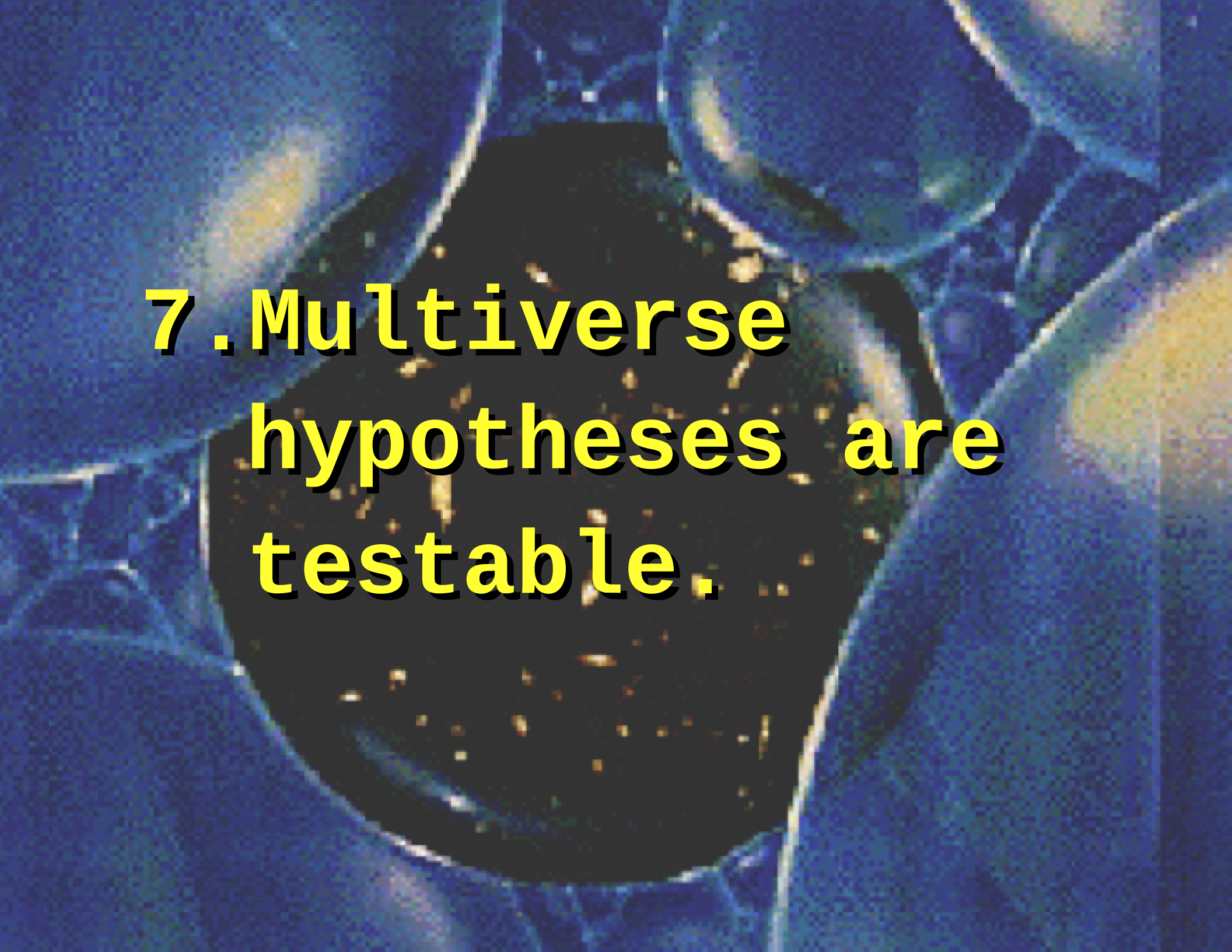
$$-0.0170 < \Omega_k < 0.0068$$

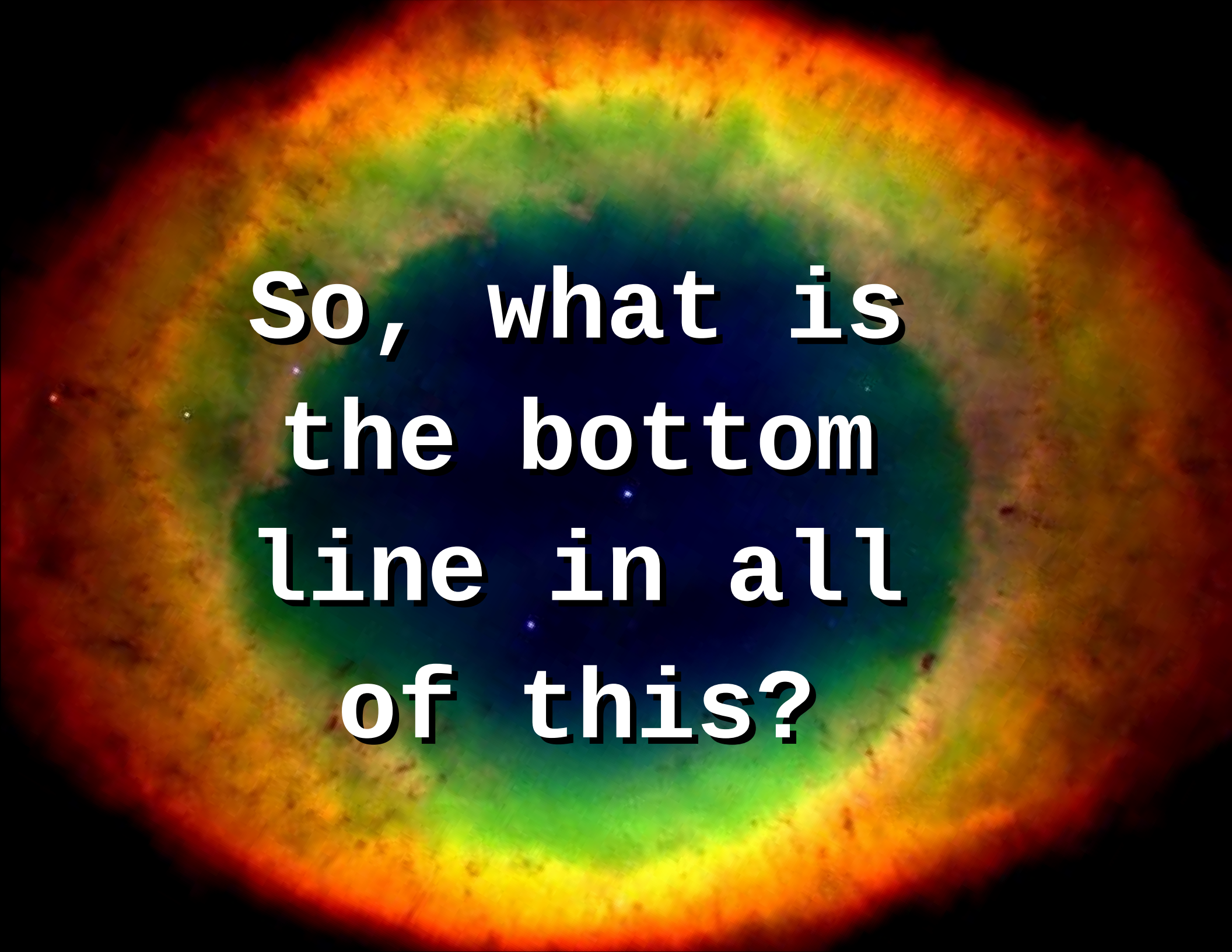

3. Multiverse models do not avoid a transcendent causal Agent for the cosmos.

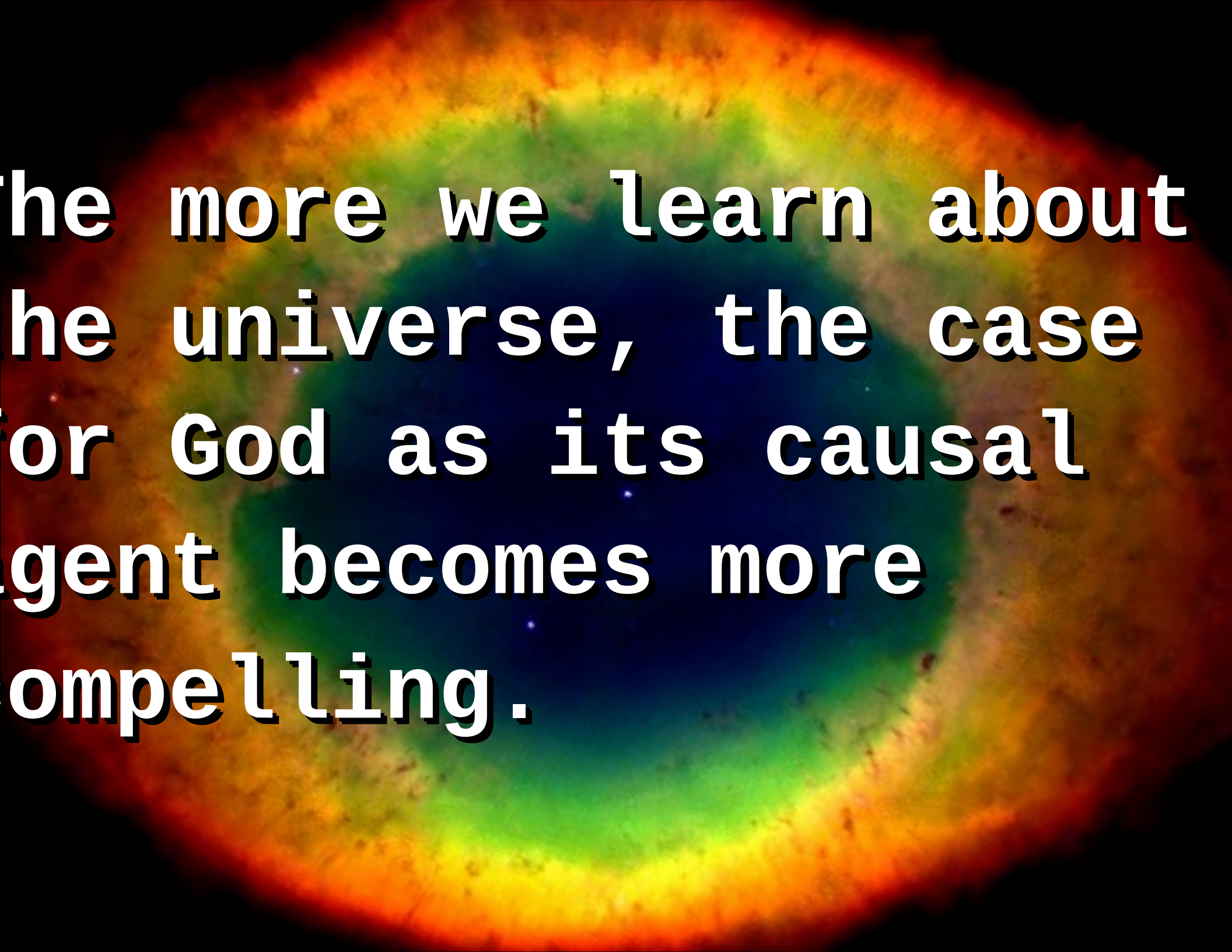

4. Infinite multiverse models explain too much. Very large multiverses may not be enough.

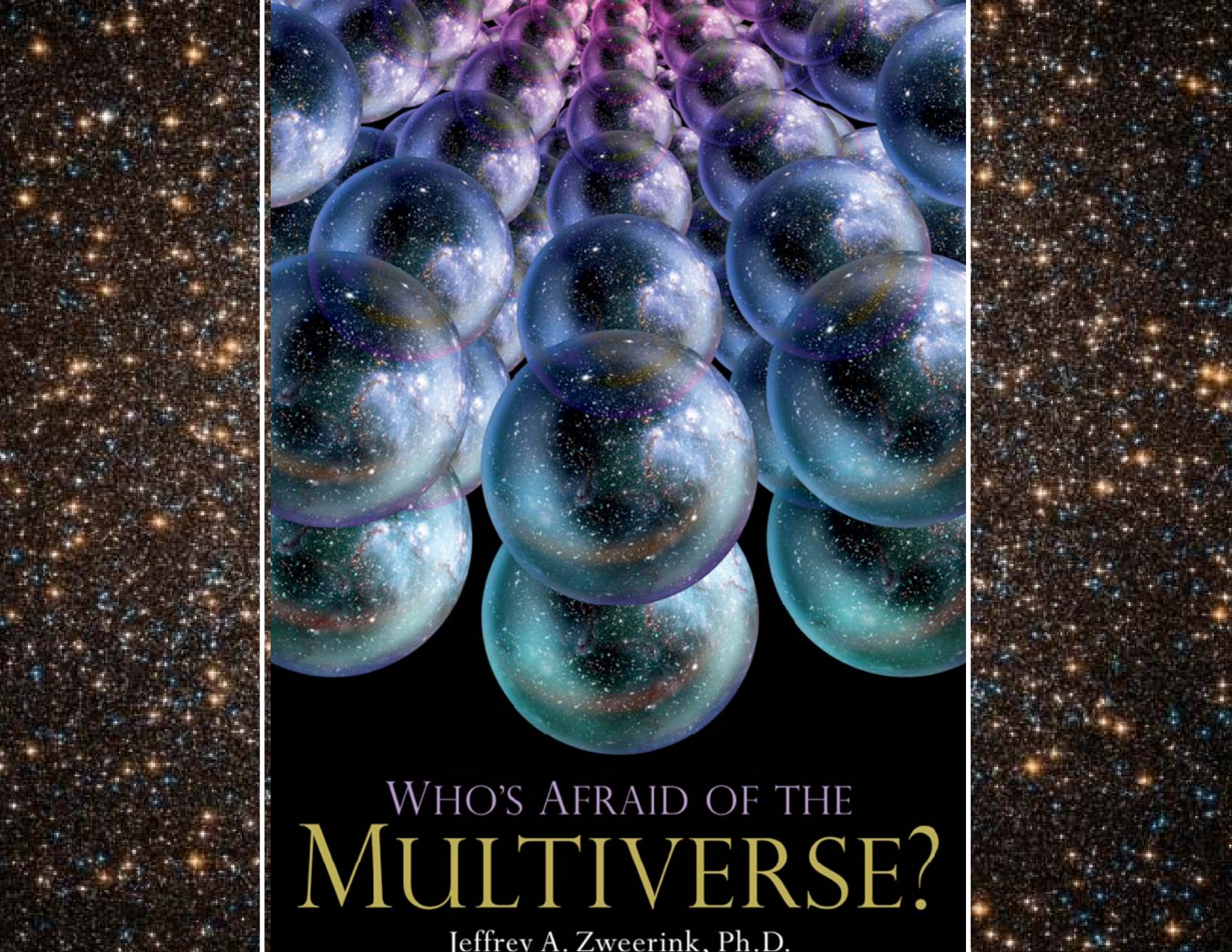

5. Multiverse hypotheses
are in danger of
committing a form of
the gambler's fallacy

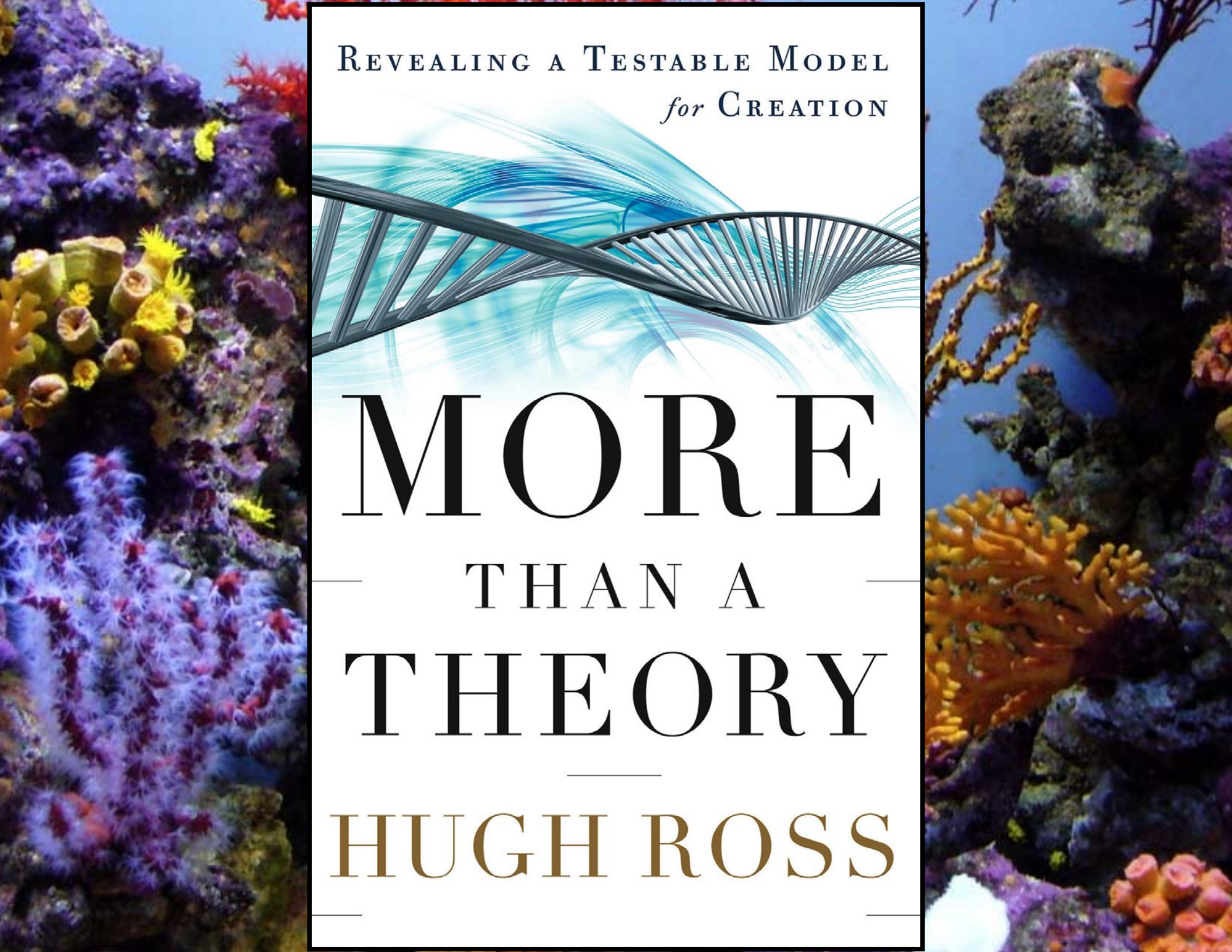

6. Design is seen on all
observable size
scales. Its
observation is limite
only by technology.


7. Multiverse hypotheses are testable.


So, what is the bottom line in all of this?


The more we learn about
the universe, the case
for God as its causal
agent becomes more
compelling.


WHO'S AFRAID OF THE
MULTIVERSE?
Jeffrey A. Zweerink, Ph.D.


Revealing a Testable Model
for Creation
MORE
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HUGH ROSS