



Cosmic Evolution: A Scientific Creation Myth Like No Other

Our current standard model of cosmology is, in fact, just the latest in a long line of “creation myths.” Why does it matter that this one is told by scientists? How can we encourage the general public to adopt suggested solutions for current/pending environmental challenges, when they appear to be losing confidence in science and scientists?

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Why are people losing confidence in science and scientists?

- They are told that it's science vs. religion

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THEATER
AN INCONVENIENT TRUTH

ATER
A REASSURING LIE



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- supported by overwhelming evidence
- in which human beings are central or special in unexpected ways

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This picture is beautiful but misleading, since it only shows about 0.5% of the cosmic density.

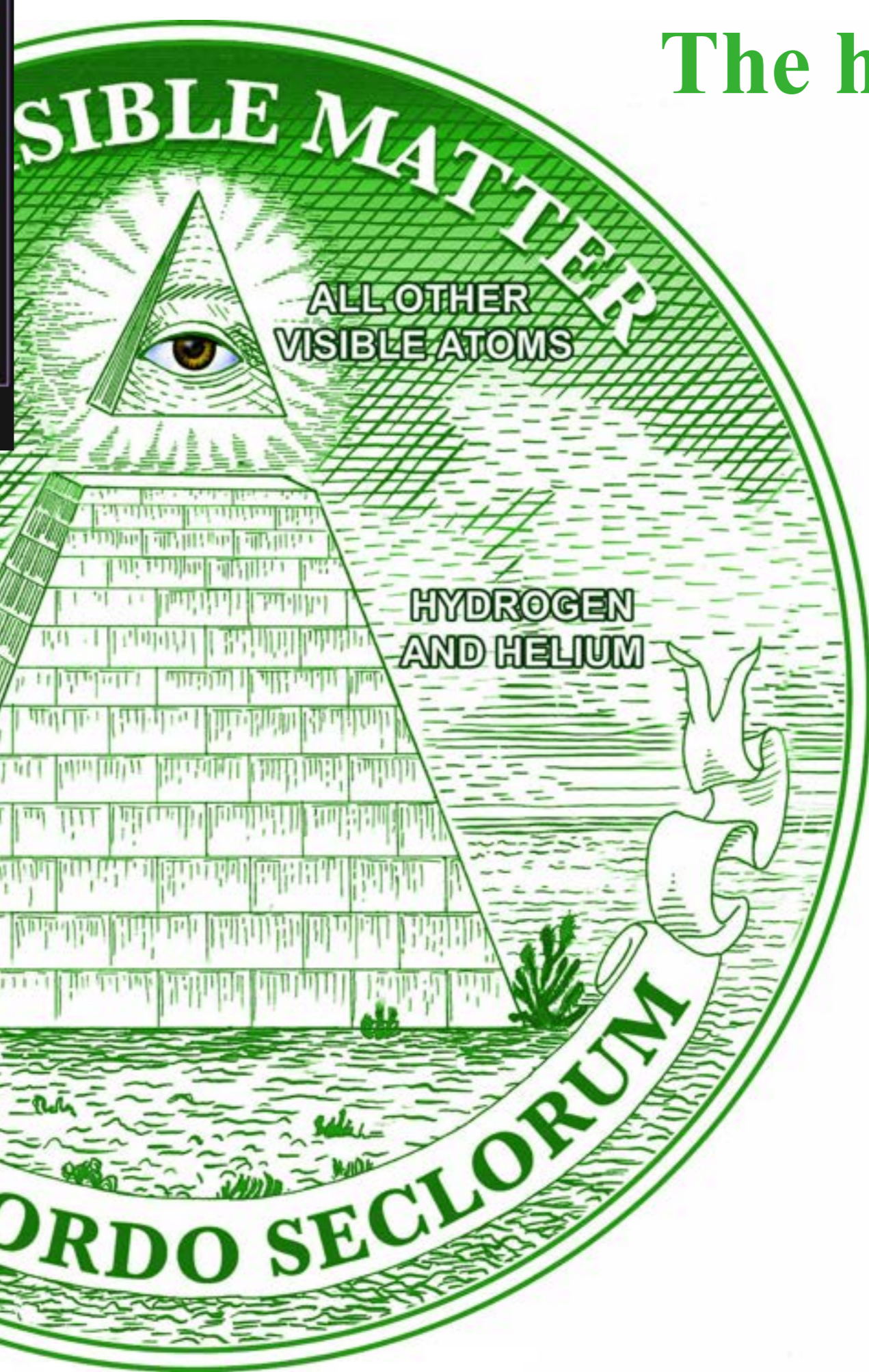
The other 99.5% of the universe is invisible.

The half %

Periodic Table

Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	--	--	--	--	--	--	--	--	--
		Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
		Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

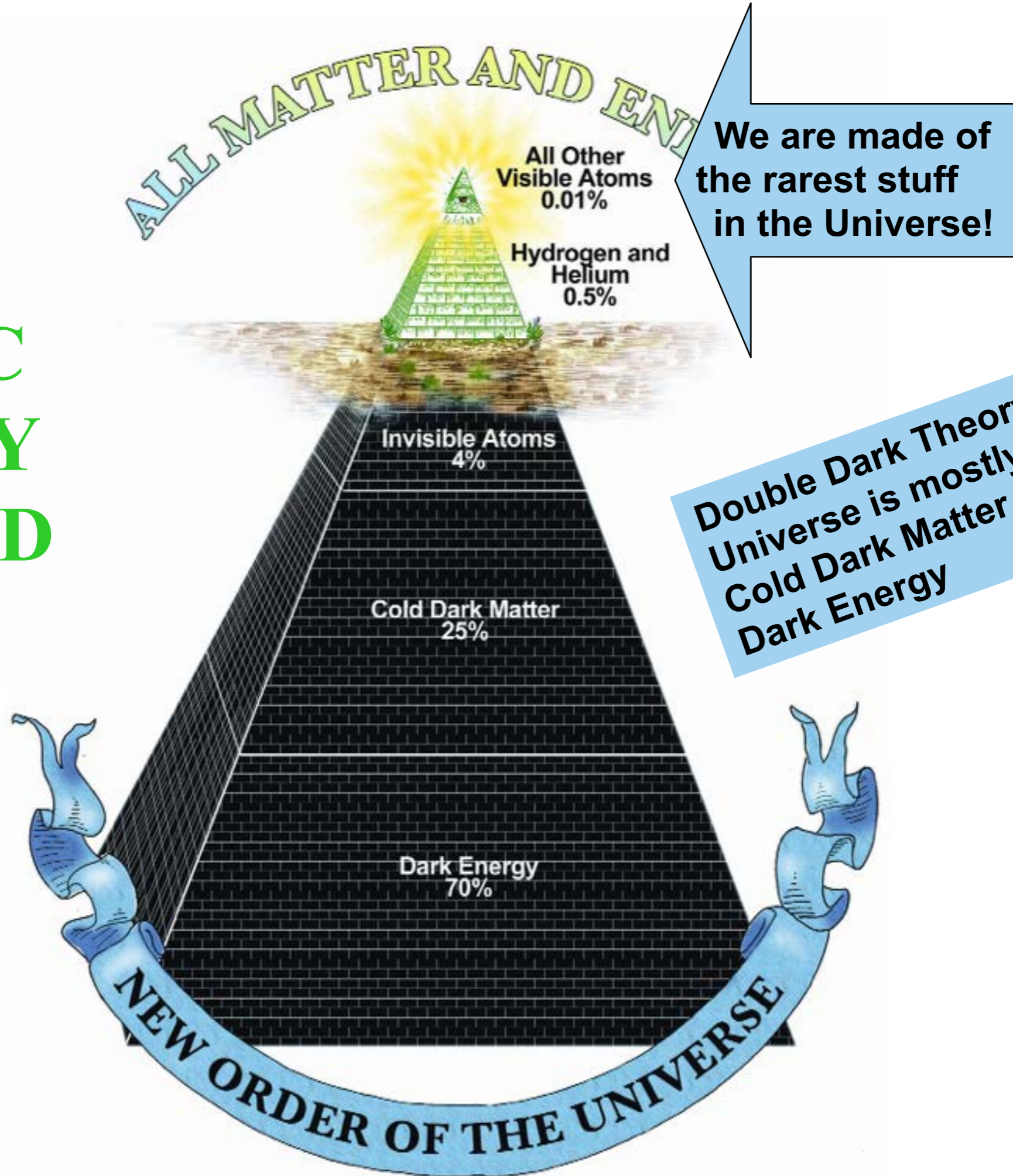
White - Big Bang Pink - Cosmic Rays
 Yellow - Small Stars Green - Large Stars
 Blue - Supernovae



stardust

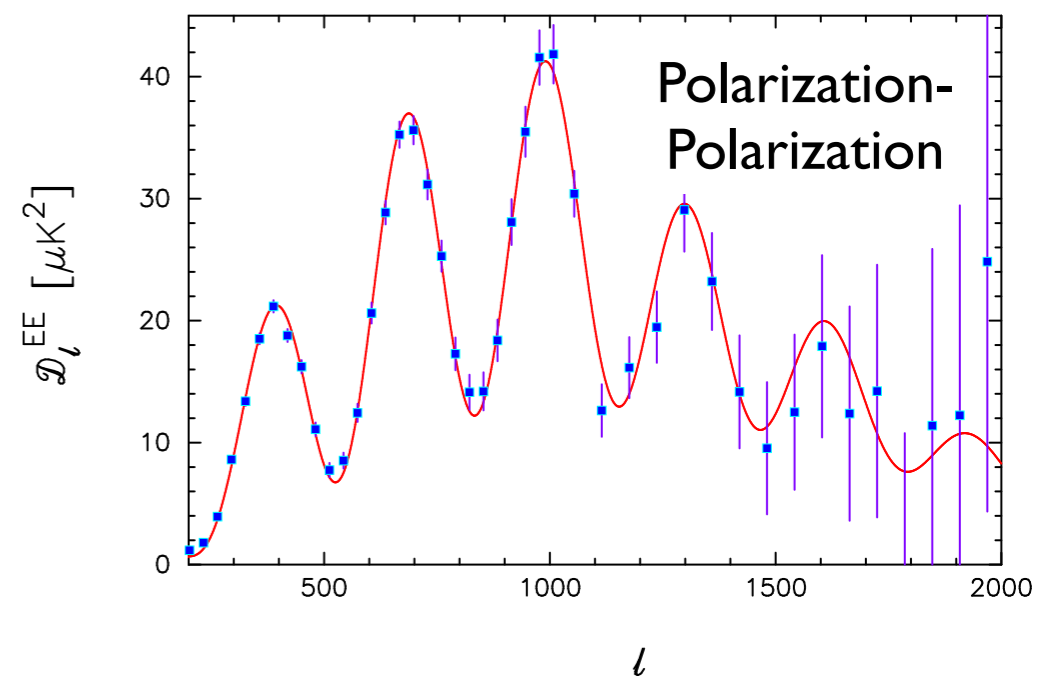
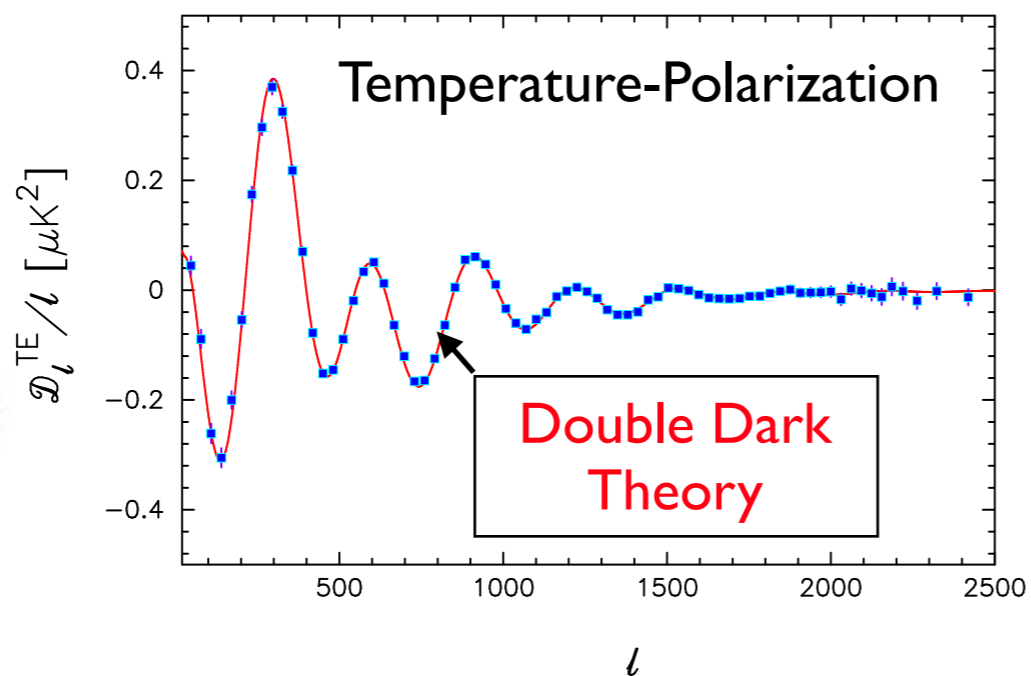
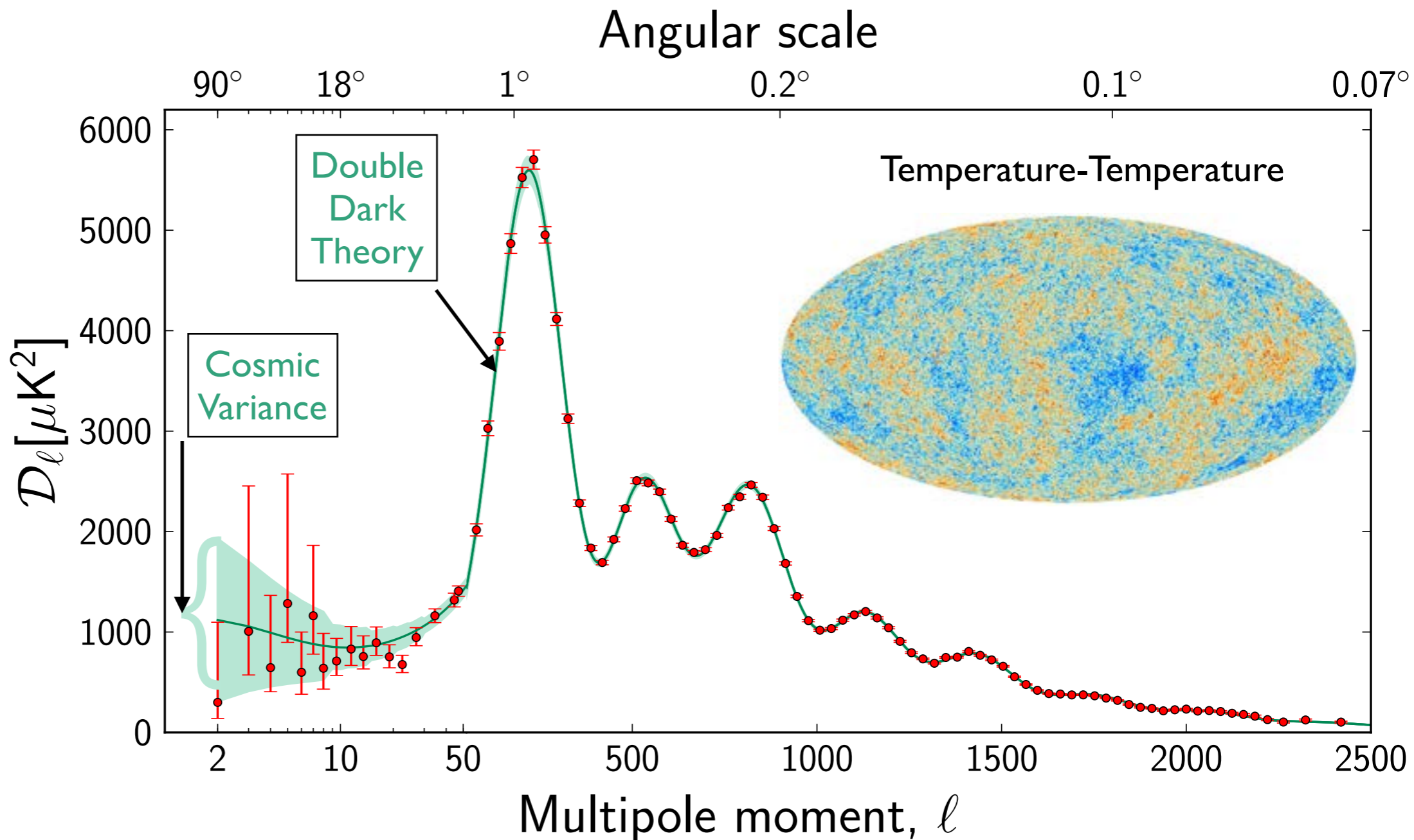
stars

COSMIC DENSITY PYRAMID



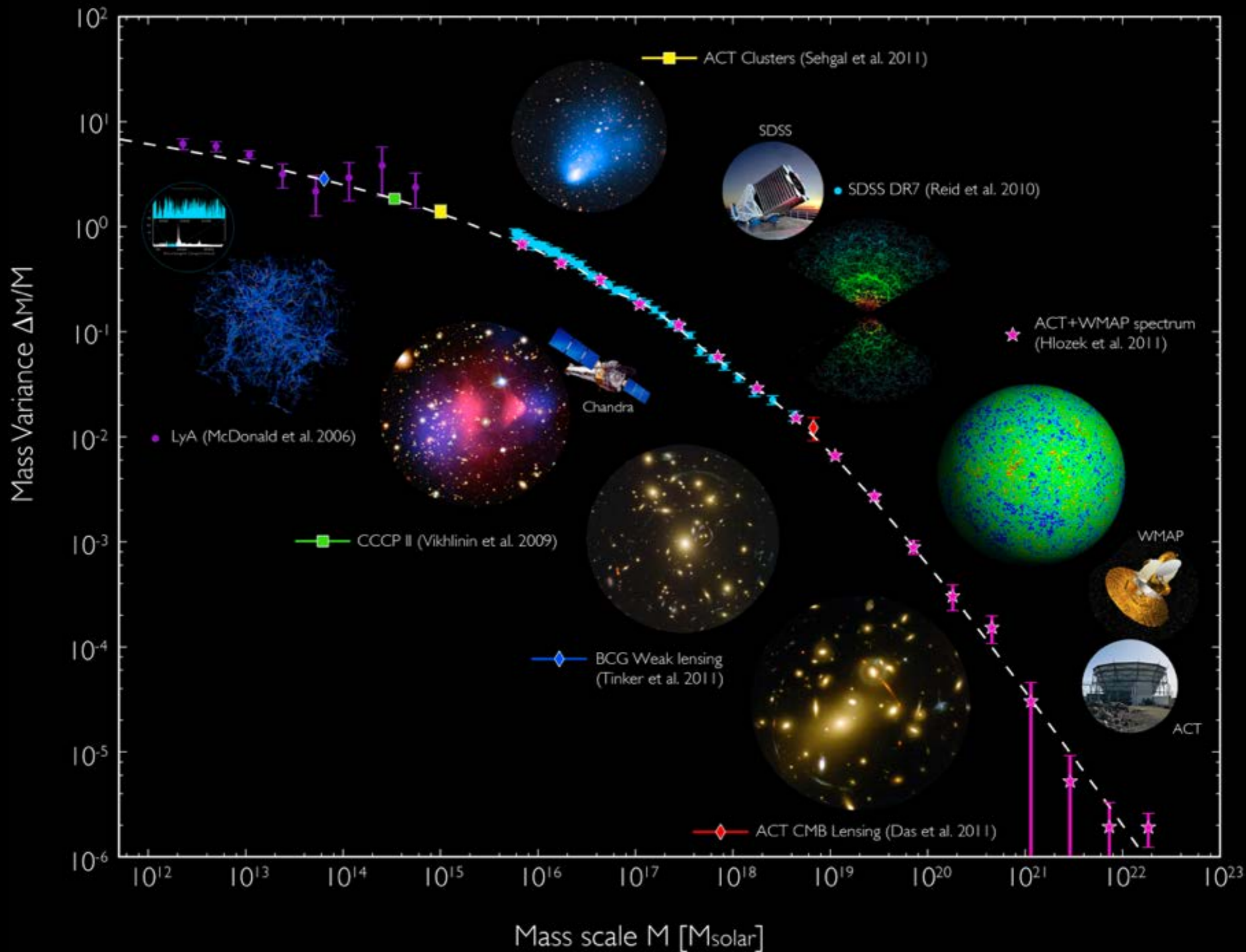
European
Space
Agency
PLANCK
Satellite
Data

Released
March 21,
2013



Matter Distribution

Agrees with Double Dark Theory!

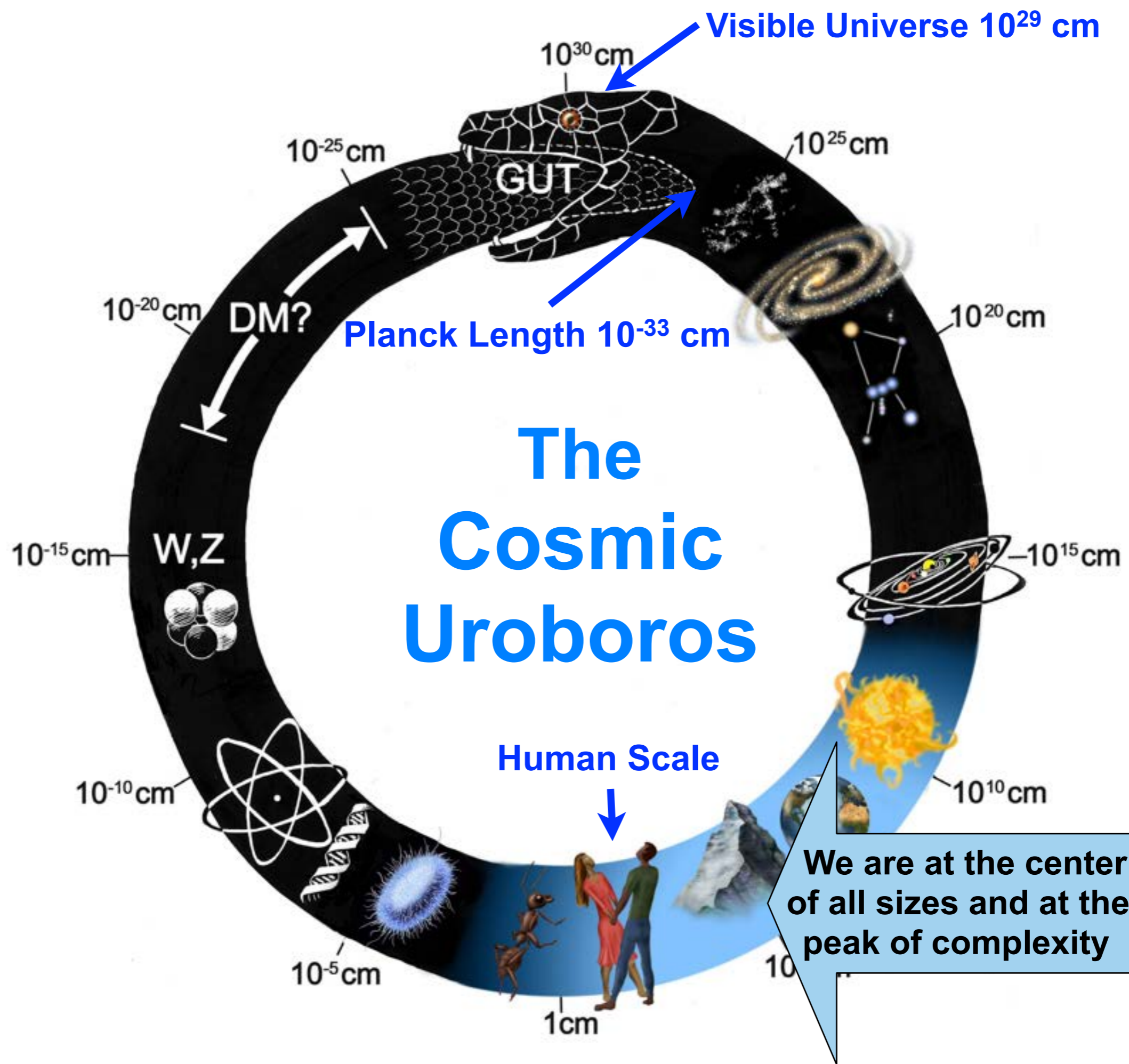


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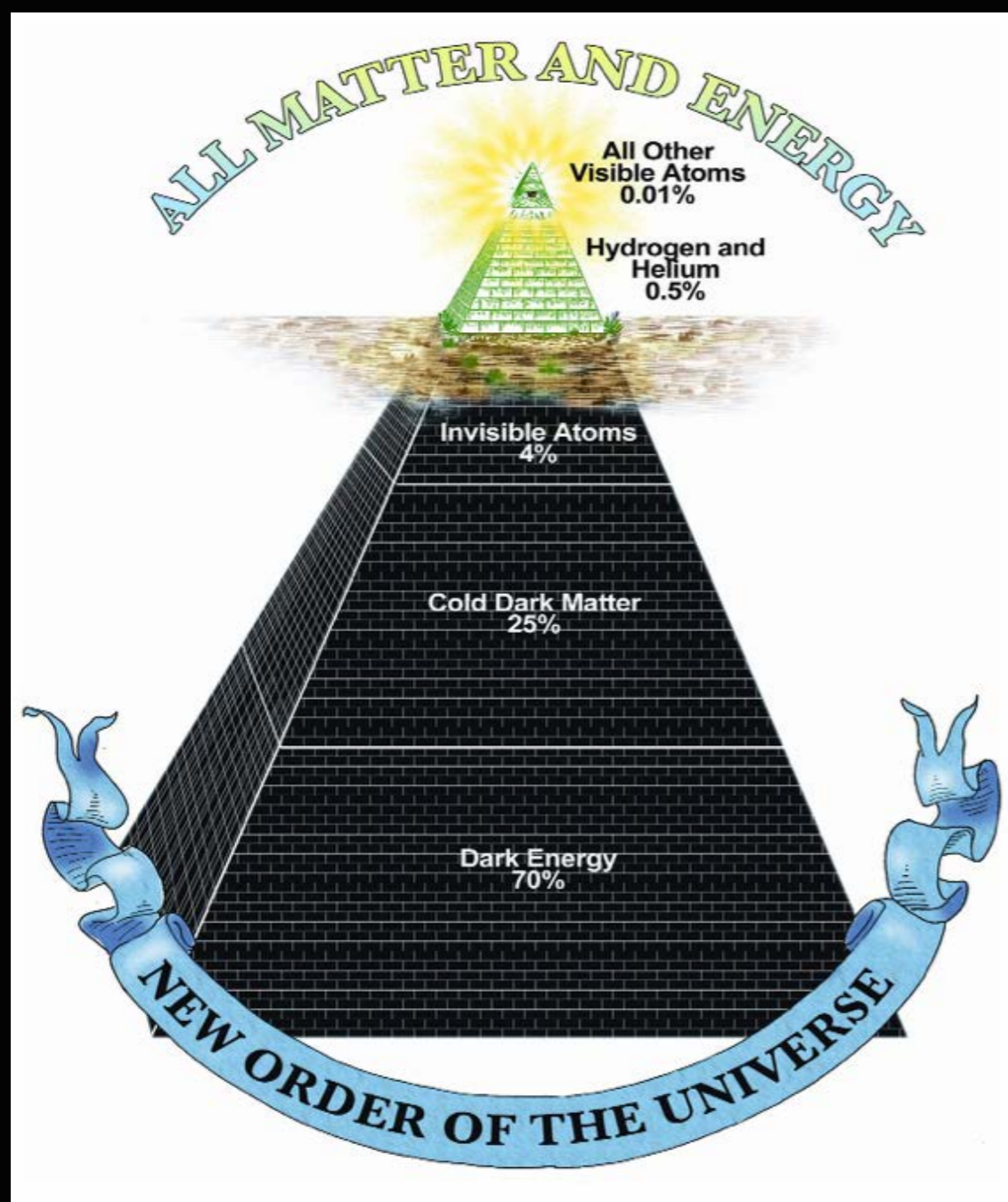
But scientific cosmology is

- a surprising but coherent story
- supported by overwhelming evidence
- in which human beings are central or special in unexpected ways



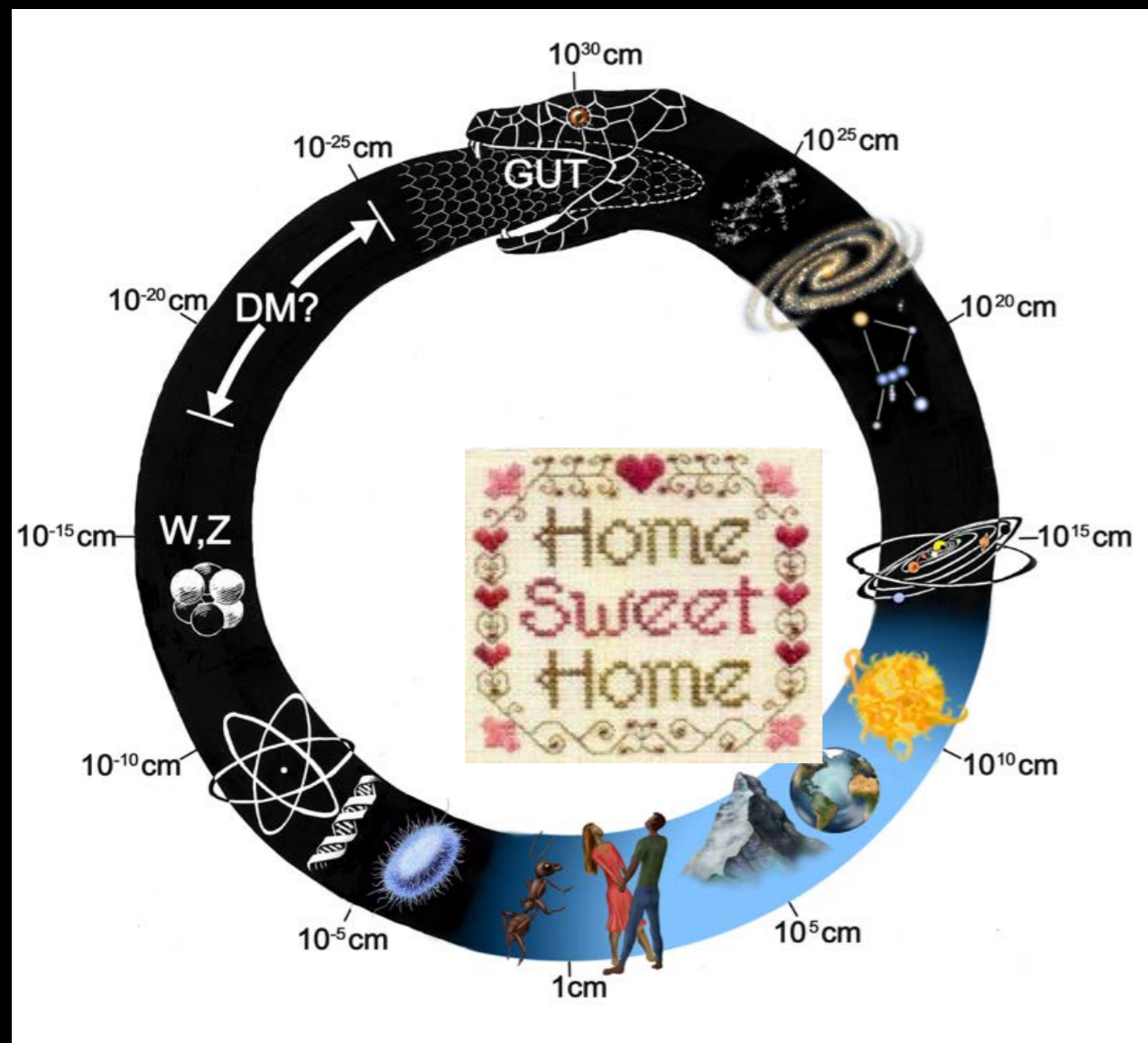
We are at the center of all sizes and at the peak of complexity

Human beings are central to the Universe, not geographically but in surprising ways, all of which follow directly from astronomy and physics.



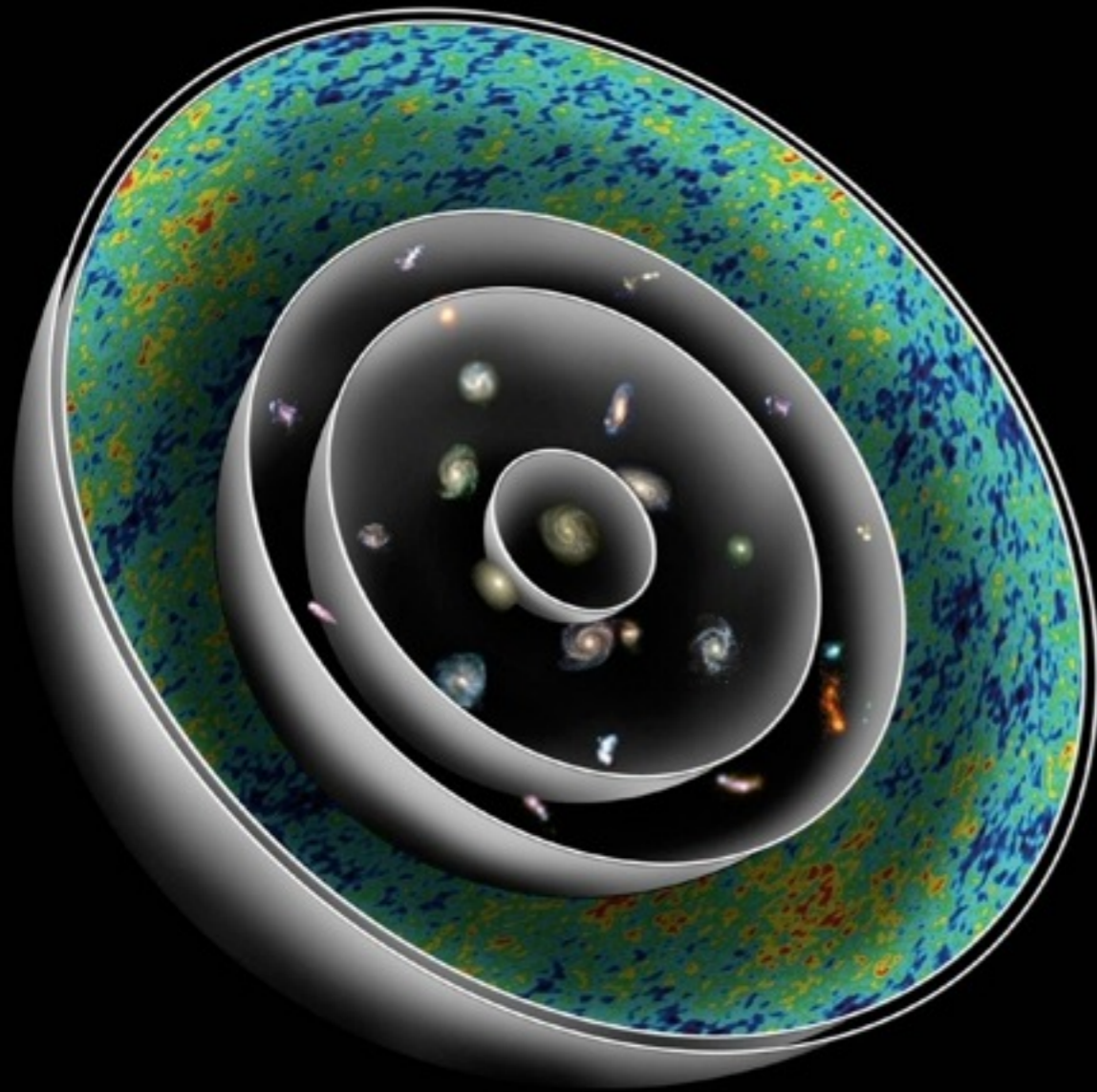
1) We are made of the rarest stuff in the universe: stardust.

Human beings are central to the Universe, not geographically but in surprising ways, all of which follow directly from astronomy and physics.



2) We live at the middle of all possible sizes – where the possibility of tremendous variety and complexity coming in small packages keeps life interesting. Life of our complexity could bloom nowhere else on the Cosmic Uroboros.

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3) We live at the center of our Cosmic Spheres of Time. The finite speed of light makes this inevitable.

We live at the middle of time on the scale of the 4) Cosmos, 5) Earth, 6) Life, & 7) Humanity

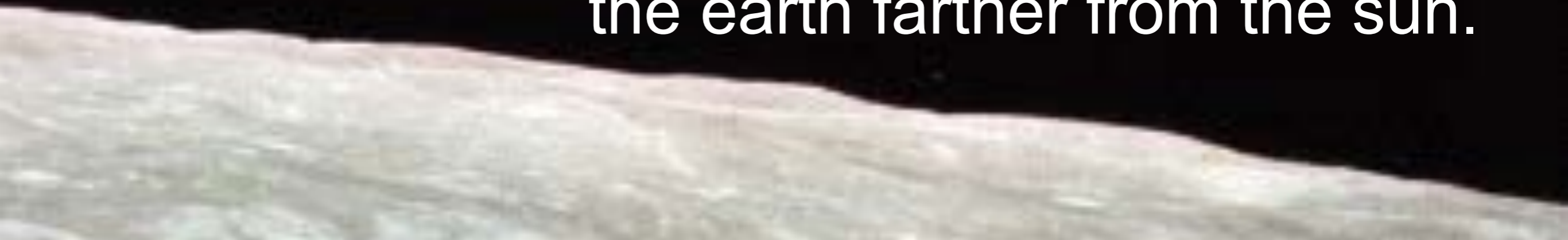
4) We live at the midpoint of time, which is also the peak moment in the entire evolution of the universe for astronomical observation. The most distant galaxies – which we have *just* acquired the technological ability to see – are beginning to disappear over the cosmic horizon now that the once-slowing expansion of the universe has begun instead to accelerate.



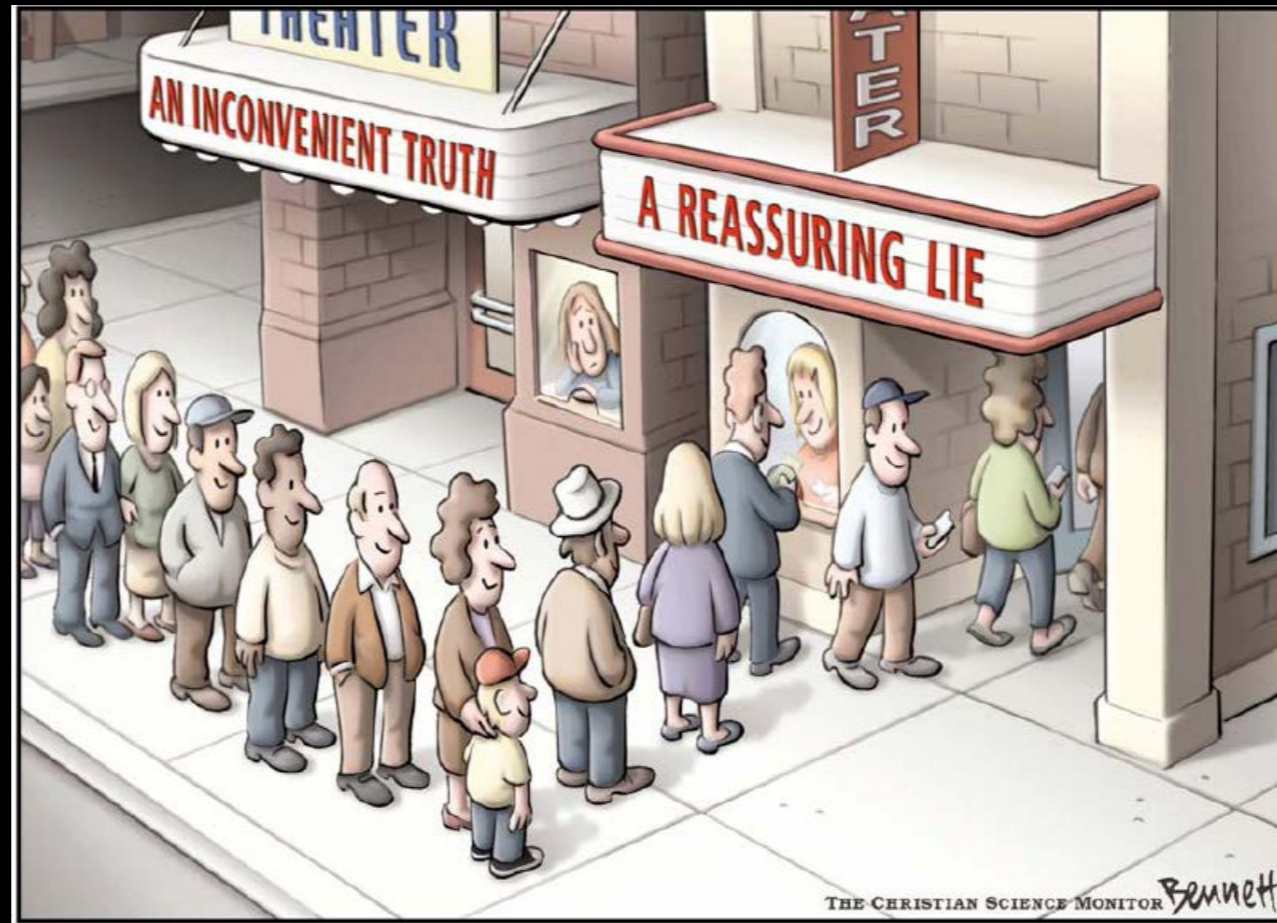
5) We live at the midpoint in the life of our planet. It formed, along with the sun and the other planets,

about four and a half billion years ago. It has about six billion years to go before it is roasted when our sun swells into a red giant star.

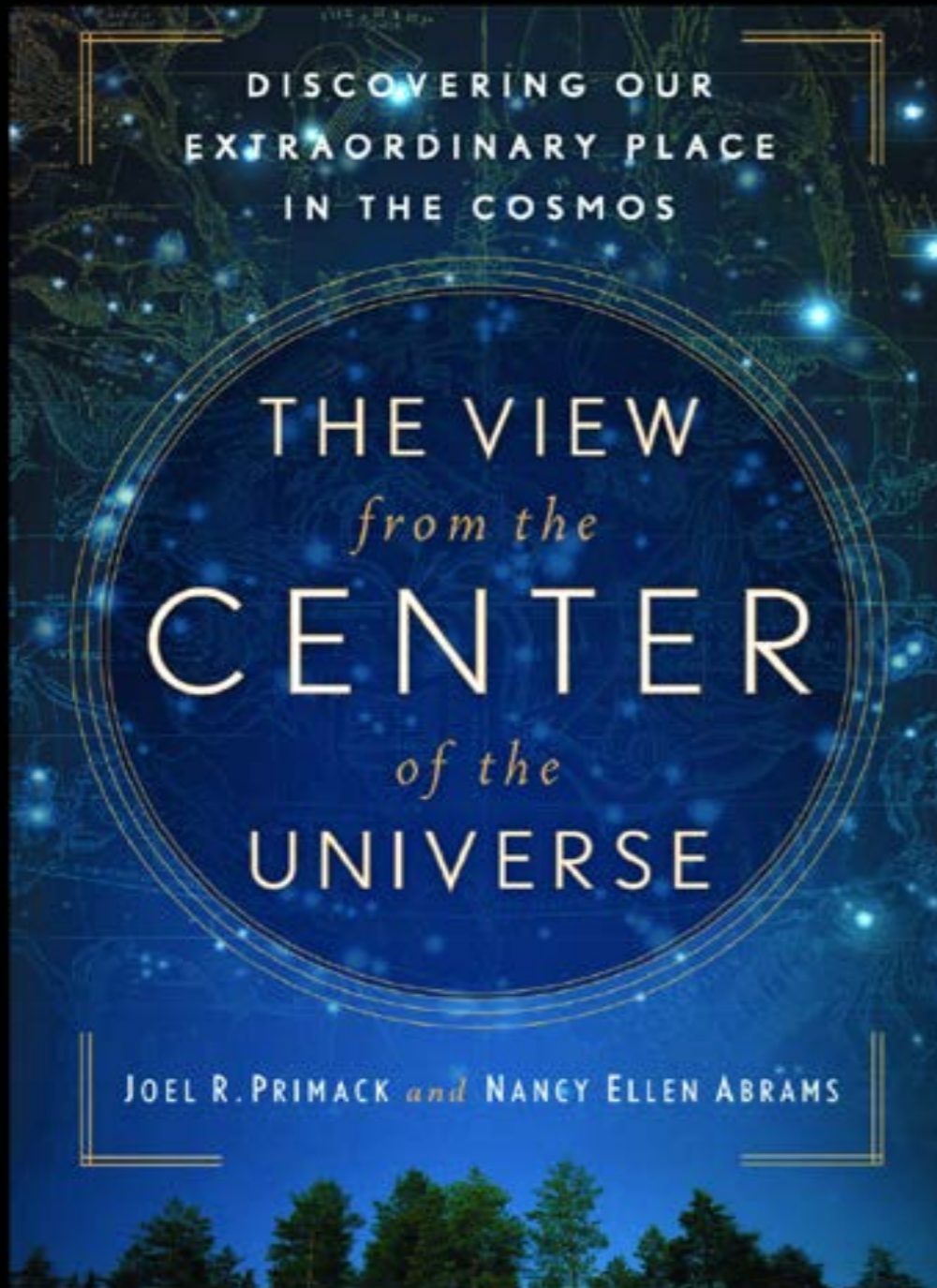
6) Complex life evolved about half a billion years ago, and has about half a billion years to go until the warming sun overheats the earth. Or billions of years if our descendants move the earth farther from the sun.



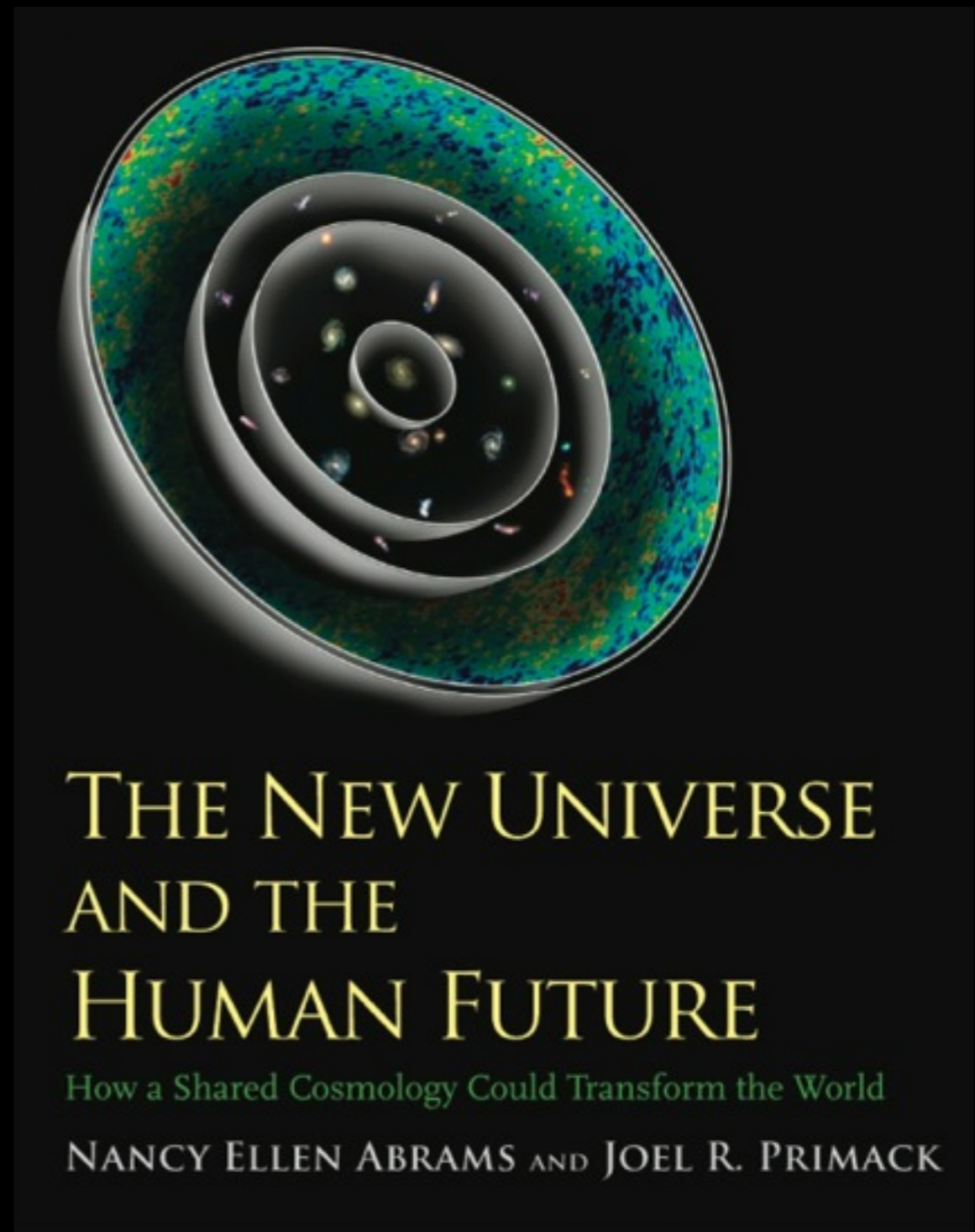
A Human Turning Point ?



7) From the point of view of our species, today is late enough to have evolved to our present abilities while early enough to have a multi-billion year potential future. For the generations alive now, it is late enough that we are sobering up to the scale of our problems, but not so late that we have lost all chance to solve them.



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