#### THE GREATEST PICTURE IN THE HISTORY OF MANKIND

I would like you to think of your favorite or most awe-inspiring photograph you've ever seen:

Now I suspect most of us would think of a photo of a loved one— A picture of your newborn baby, a photograph of your spouse on your wedding day, or maybe for some of you—your favorite photo is something as simple as a beautiful scene in nature.

Well, on the next page I would like to show you what is my favorite, what I believe is the most awe-inspiring, the most magnificent picture that has ever been taken in the history of mankind.



Hubble eXtreme Deep Field (XDF) Hubble Space Telescope • ACS/WFC • WFC3/IR Okay—you may be looking at this thinking what the heck is he talking about? What is so awe inspiring—What is so magnificent about a black photo with little specs of swirly lights everywhere?

Well, this photograph is simply called the HUBBLE XTREME DEEP FIELD and it is a digital image that was compiled from over 10 years of data taken by the Hubble Telescope that is orbiting in Earth's atmosphere. And what you are looking at is the most detailed image of the universe ever taken.

In 2004 scientists began taking pictures of just a tiny, itsy-bitsy "keyhole" section of the universe. In fact, the patch of sky that the Hubble Telescope was filming was so small that if you extended your arm out and held a single grain of rice in-between two fingers that is the size of the area of the universe the Hubble Telescope was filming.

But what exactly are you looking at? And why do I think this photograph is the most awe- inspiring, most magnificent picture ever??

Well, each speck, every swirl, dot and smudge you see, you might assume that they are stars--But there not and get ready for this: Every little point of light in this photo is an entire galaxy and if you were so inclined and started counting you would find that there are over 16000 galaxies visible in this single image.

And think about this: Every speck, swirl, dot and smudge, every single one of the 16,000 galaxies in this single photo contains hundreds of billions and even trillions of stars.

Now I know when we start talking about numbers like 16,000 galaxies with each one having trillions of stars the numbers become so large and so incomprehensible that it is almost impossible to put it into any kind of meaningful context.

But what we can comprehend is that the Hubble Telescope is a time machine and what this photo represents is that we are traveling back in time to almost the creation of universe.

It is a baby picture of our universe because most of the galaxies in this photo are only 500 million years old or at least their images are only 500 million years old because it then took 13.2 billion years for their light to travel across the vast expanses of the universe to reach Earth.

Meaning that if one of these galaxies ceased to exist today we wouldn't even know about it for another 13.2 billion years. Okay, you're probably thinking, I get it, I think, but on a grand scale what could this possibly mean?

Well, Ilya Progognine, a two-time recipient of the noble prize in chemistry, considered one of the greatest minds the world has ever known said "that the statistical probability that organic structures, living conscious organisms could be generated by accident in this universe is—ZERO."

And I find it interesting that the greatest minds the world has ever known repeatedly refer to mathematics in regards to our place among the stars.

Galileo said that, **"mathematics was the language of god."** And Einstein was quoted as saying, **"that god doesn't play dice with the world."**  A very exciting development has been occurring over the last 40 years with the advancement of physics. There has been a growing number of hard scientists--mathematicians, cosmologists, chemists and physicists that have been adopting an idea called the ANTHROPIC PRINCIPLE.

This is an evolving scientific theory, a philosophical belief that states that the universe was actually set up or at least fined tuned for the existence of life—An intelligent design was involved, rather than us being the result of some statistical anomaly in an infinite universe.

So perhaps, just maybe, the universe was actually created for intelligent life to exist in it and not the other way around? And that intelligent life across the cosmos was not the end result of the universe but rather the universe was <u>created to be inhabited by us</u>.

But what do these scientists base this theory on? Speculation? Religion? Faith? Personal beliefs? No—They base it on the laws of mathematics or as Galileo said, **"the language of god".** 

So you want proof? Show me the Math you say? Well, here it is. The following mathematical examples are why so many hard scientists believe beyond a shadow of doubt that the universe had to have been fine tuned for us to exist within it.

If the gravitational force of the universe was altered by this number. No planets or stars would have ever been able to form. Nor would we have been able to exist.

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And here is an even crazier example for physical life to be able to exist the mass density of the universe must be fine-tuned to  $(10^{60})$ . What the heck does that even mean? Well if the mass density ratio of the universe was off by more than one part in a trillion trillion trillion trillion trillion there is nothing but a giant empty black void. Nothingness.

Here is what that number looks like

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How about this one. If the space energy density (the self-stretching property of the universe) varied by more than one part in  $10^{120}$  nothing in the universe could have ever formed. So if the space energy density(cosmological constant) was off by more than this number there is just a giant black void.

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I know, I know enough with the large numbers so I'll stop right there but the point is I just gave 3 statistical impossible probabilities that mathematical proves there is no way we should exist—But yet were here?

And even more incredibly scientists have identified a total of 38 constants that if any one of them were off by trillionth of degrees would have meant we could not exist. By the way the 38 constants are scientific facts that are not disputed even by scientists who do not adhere to the Anthropic Principle. Meaning the underlying science is not in dispute only what it means.

But I ask you—What is the probability, what is the likelihood that not just one but every single one of these 38 constants exist as they do?? The mathematical probability if calculated would be as close to infinity as you can get.

I went to University of Alabama so I can't explain all this and maybe I've watched 2001: A Space Odyssey too many times or maybe I've read too many Arthur C Clark books but I choose to look at this picture with childlike curiosity and wonderment—It is almost as if there is some type of divine magic involved and that maybe, just maybe there are creator(s) out there in the universe. Or as Dr. Hugh Ross says, "there are reasons to believe."

Because after all scientists disagree on many things but I've never read one scientist who will dispute this point:

Our bodies at the most fundamental levels are comprised of energy and the First Law of Thermodynamics states—

THAT ENERGY CANNOT BE DESTROYED, IT CAN ONLY CHANGE FORM.

So I'll leave you with one last quote by Einstein which I think perfectly sums up our place in the universe,

# THE HUMAN MIND IS NOT CAPABLE OF GRASPING THE UNIVERSE. WE ARE LIKE A LITTLE CHILD ENTERING A HUGE LIBRARY.

#### THE WALLS ARE COVERED TO THE CEILINGS WITH BOOKS IN MANY DIFFERENT TONGUES. THE CHILD KNOWS THAT SOMEONE MUST HAVE WRITTEN THESE BOOKS.

IT DOES NOT KNOW WHO OR HOW. IT DOES NOT UNDERSTAND THE LANGUAGES IN WHICH THEY ARE WRITTEN. BUT THE CHILD NOTES A DEFINITE PLAN IN THE ARRANGEMENT OF THE BOOKS - A MYSTERIOUS ORDER WHICH IT DOES NOT COMPREHEND, BUT ONLY DIMLY SUSPECTS."