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The Big Bang didn't happen | Eric Lerner

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The Big Bang Hypothesis - which states the universe has been expanding since it began 14 billion years ago in a hot and dense state - is contradicted by the new James Webb Space Telescope images, writes Eric Lerner.

Eric Lerner will be a speaker at our upcoming festival HowTheLightGetsIn London 2022 September 17-18, taking part in the debate <a href="Cosmology and the Big Bust".

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To everyone who sees them, the new James Webb Space
Telescope (JWST) images of the cosmos are beautifully aweinspiring. But to most professional astronomers and cosmologists,
they are also extremely surprising—not at all what was predicted by
theory. In the flood of technical astronomical papers published
online since July 12, the authors report again and again that the
images show surprisingly many galaxies, galaxies that are
surprisingly smooth, surprisingly small and surprisingly old. Lots of
surprises, and not necessarily pleasant ones. One paper's title
begins with the candid exclamation: "Panic!"

Why do the JWST's images inspire panic among cosmologists?

And what theory's predictions are they contradicting? The papers don't actually say. The truth that these papers don't report is that the hypothesis that the JWST's images are blatantly and repeatedly contradicting is the Big Bang Hypothesis that the universe began 14 billion years ago in an incredibly hot, dense state and has been expanding ever since. Since that hypothesis has been defended for decades as unquestionable truth by the vast majority of cosmological theorists, the new data is causing these theorists to panic. "Right now I find myself lying awake at three in the morning," says Alison Kirkpatrick, an astronomer at the University of Kansas in Lawrence, "and wondering if everything I've done is wrong."



The Delusions of

Cosmology Read more It is not too complicated to explain why these too small, too smooth, too old and too numerous galaxies are completely incompatible with the Big Bang hypothesis. Let's begin with "too small". If the universe is expanding, a strange optical illusion must exist. Galaxies (or any other objects) in expanding space do not continue to look smaller and smaller with increasing distance. Beyond a certain point, they start looking larger and larger. (This is because their light is supposed to have left them when they were closer to us.) This is in sharp contrast to ordinary, non-expanding space, where objects look smaller in proportion to their distance.

Put another way, the galaxies that the JWST shows are just the same size as the galaxies near to us, assuming that the universe is not expanding and redshift is proportional to distance.

Smaller and smaller is exactly what the JWST images show. Even galaxies with greater luminosity and mass than our own Milky Way galaxy appear in these images to be two to three times smaller than in similar images observed with the Hubble Space Telescope (HST), and the new galaxies have redshifts which are also two to three times greater.

This is not at all what is expected with an expanding universe, but it is just exactly what I and my colleague Riccardo Scarpa predicted based on a non-expanding universe, with redshift proportional to distance. Starting in 2014, we had already <u>published results</u>, based on HST images, that showed that galaxies with redshifts all the way up to 5 matched the expectations of non-expanding, ordinary space. So we were confident the JWST would show the same thing—which it already has, for galaxies having redshifts as high as 12. Put another way, the galaxies that the JWST shows are just the same size as the galaxies near to us, **if** it is assumed that the universe is **not** expanding and redshift is proportional to distance.



Dark Matter Doesn't

Exist Read more But from the standpoint of the Big Bang, expanding-universe hypothesis, these distant galaxies must be

intrinsically extremely tiny to compensate for the hypothesized optical illusion—implausibly tiny. One galaxy noted in the papers, called GHz2, is far more luminous that the Milky Way, yet is calculated to be only 300 light years in radius—150 times smaller than the radius of our Milky Way. Its surface brightness—brightness per unit area-- would be 600 times that of the brightest galaxy in the local universe. Its density (and that of several other galaxies in the new images) would be tens of thousands of times that of present-day galaxies.

Tiny and smooth galaxies mean no expansion and thus no Big Bang.

Big Bang theorists have known for years from the HST images that their assumptions necessitate the existence of these tiny, ultradense "Mighty Mouse" galaxies. JWST has made the problem far worse. The same theorists have speculated that the tiny galaxies grow up into present day galaxies by colliding with each other—merging to become more spread out. An analogy to this hypothetical merger process would be to imagine a magical toy car a centimeter long that nonetheless weighs as much as a SUV and grows up into a real SUV by colliding with many other toy cars.

Bang goes the Big Bang: With Roger Penrose, John Ellis and Laura Mersini-Houghton

But the JWST has shot through this far-out scenario as well. If you could believe the toy car story, you would at least expect some fender dents in the colliding cars. And Big Bang theorists did expect to see badly mangled galaxies scrambled by many collisions or mergers. What the JWST actually showed was overwhelmingly smooth disks and neat spiral forms, just as we see in today's galaxies. The data in the "Panic!" article showed that smooth spiral

galaxies were about "10 times" as numerous as what theory had predicted and that this "would challenge our ideas about mergers being a very common process". In plain language, this data utterly destroys the merger theory.

With few or no mergers, there is no way tiny galaxies could grow to be a hundred times bigger. Therefore, they were not tiny to begin with, and thus the optical illusion predicted from the expanding universe hypothesis does not exist. But no illusion means no expansion: the illusion is an unavoidable prediction from expansion. Thus, the panic among Big Bang supporters. Tiny and smooth galaxies mean no expansion and thus no Big Bang.

Since nothing could have originated before the Big Bang, the existence of these galaxies demonstrates that the Big Bang did not occur.

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Too old and too many galaxies mean the same thing. The JWST uses many different filters to take its images in the infrared part of the spectrum. Thus, it can see the colors of the distant galaxies. This in turn allows astronomers to estimate the age of the stars in these galaxies because young, hot stars are blue in color and older, cooler stars, like our sun, are yellow or red in color. According to Big Bang theory, the most distant galaxies in the JWST images are seen as they were only 400-500 million years after the origin of the universe. Yet already some of the galaxies have shown stellar populations that are over a billion years old. Since nothing could have originated before the Big Bang, the existence of these galaxies demonstrates that the Big Bang did not occur.

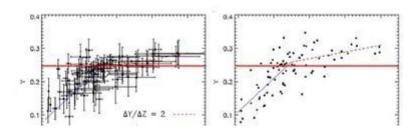
Just as there must be no galaxies older than the Big Bang, if the Big Bang hypothesis were valid, so theorists expected that as the JWST looked out further in space and back in time, there would be

fewer and fewer galaxies and eventually none—a Dark Age in the cosmos. But a <u>paper</u> to be published in Nature demonstrates that galaxies as massive as the Milky Way are common even a few hundred million years after the hypothesized Bang. The authors state that the new images show that there are at least 100,000 times as many galaxies as theorists predicted at redshifts more than 10. There is no way that so many large galaxies can be generated in so little time, so again-- no Big Bang.

While Big Bang theorists were shocked and panicked by these new results, Riccardo and I (and a few others) were not. In fact, a week before the JWST images were released we published online a paper that detailed accurately what the images would show. We could do this with confidence because more and more data of all kinds has been contradicting the Big Bang hypothesis for years. The widely-publicized crisis in cosmology has drawn general attention to the failed predictions of the Big Bang hypothesis for the Hubble constant relating redshift to distance. But our papers, published over the past decades, have pointed to far more contradictions, each individually acknowledged by other researchers.

Based on the published literature, right now the Big Bang makes 16 wrong predictions and only one right one—the abundance of deuterium, an isotope of hydrogen.

Helium far too low in local stars



The Big Bang prediction of the abundance of helium is off by a factor of two, the prediction for the abundance of lithium is off by a factor of 20. In addition to the absence of the larger-more-distant optical illusion, there is also the existence of large-scale structures too big to have formed in the times since the Big Bang, wrong predictions for the density of matter in the universe, and well-known asymmetries in the cosmic microwave background that should not exist according to theory. There are many more contradictions. In early July I published two comprehensive papers summarizing the situation. Based on the published literature, right now the Big Bang makes 16 wrong predictions and only one right one—the abundance of deuterium, an isotope of hydrogen.



Cosmology in crisis

Read more Readers may well be wondering at this point why they have not read of this collapse of the Big Bang hypothesis in major media outlets by now and why the authors of so many recent papers have not pointed to this collapse themselves. The answer lies in what I term the "Emperor's New Clothes Effect"—if anyone questions the Big Bang, they are labeled stupid and unfit for their jobs. Unfortunately, funding for cosmology comes from a very few government sources controlled by a handful of committees that are

dominated by Big Bang theorists. These theorists have spent their lives building the Big Bang theory. Those who openly question the theory simply don't get funded.

It has now become almost impossible to publish papers critical of the Big Bang in any astronomical journals.

Until the past few years, if researchers could self-fund cosmology research as a sideline, as is the case with me, they still could publish "heretical" papers, although those papers were often ignored by the cosmological establishment. As recently as 2018, the Monthly Notices of the Royal Astronomical Society (MNRAS), a leading journal, published one of my <u>papers</u> showing how the sizes of galaxies contradicted the expanding universe idea.

But as the crisis in cosmology became obvious in 2019, the cosmological establishment has circled the wagons to protect this failed theory with censorship, because it now has no other defense. It has now become almost impossible to publish papers critical of the Big Bang in any astronomical journals. An anonymous senior editor rejected my survey papers, writing "There are many journals which would be interested in publishing a well-argued synthesis of existing evidence against the standard hot big bang interpretation. But MNRAS, with its focus on publication of significant new astronomical results, is not one of them". The replies from several other journals were similar.

Such censorship is now, as always, inimical to the progress of science. Two dozen researchers in astrophysics, astronomy and space science have signed a <u>letter of protest</u> to the arXiv leadership. I have personally called on leading Big Bang theorists to openly debate the new evidence. For cosmology – as for any research area - to advance, this debate must happen openly in both

scientific journals and the public media.

To use fusion energy, the power that drives the universe and gives light to the Sun and all the stars, we need to understand the processes that drive cosmic evolution.

These scientific questions matter in the here and now. Over decades scientists, starting with Physics Nobel Laureate Hannes Alfven, have shown that if the Big Bang hypothesis is thrown out, the evolution of the cosmos and the phenomena that we observe today, like the cosmic microwave background, can be explained using the physical processes we observe in the laboratory—especially the electromagnetic processes of plasmas. Plasma is the electrically conducting gas that makes up nearly all the matter that we see in space, in the stars and in the space between the stars. Only the Hubble redshift relation would still need some new physical process to explain the loss of energy as light travels huge distances.

One of the key processes in plasmas that Alfven and his colleagues identified, and which has been studied for 50 years, is plasma filamentation. This is the process by which electric currents, and the magnetic fields they create, draw plasma into the lacy system of filaments that we see at all scales in the universe from the aurorae in the earth's atmosphere to the solar corona to galactic spiral arms, even to clusters of galaxies. Together with gravitational forces, plasma filamentation is one of the basic processes in the formation of planets, stars, galaxies and structures at all scales.

That process of plasma filamentation is also key to the enormously important effort to develop fusion energy here on earth. To use fusion energy, the power that drives the universe and gives light to the Sun and all the stars, we need to understand the processes that

drive cosmic evolution. Just as the Wright Brothers developed the airplane by studying how birds controlled their flight, so today we can only control the ultra-hot plasma where fusion reactions occur by studying how plasmas behave at all scales in cosmos. We need to imitate nature, not try to fight it. We at LPPFusion have been applying that knowledge concretely to the development of a cheap, clean and unlimited source of energy that can entirely replace fossil fuels starting in this decade.

While many researchers have been funded to study these processes on the scale of the sun and the solar system, work on larger scales has been hobbled by the straightjacket of the Big Bang hypothesis, which has diverted hundreds or thousands of talented researchers into futile calculations of the imaginary entities, like dark matter and dark energy, that have been invented to prop up a failing theory. Open debate can clear away that failed theory and lead to the reorientation of cosmology to the study of real phenomena, advancing technology here on earth. It is time to end the censorship and to let the debate begin. Cosmology can emerge from its crisis once it is recognized that the Big Bang never happened.

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