

# Vestiges of Big Bang Waves Are Reported

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> *From: Bjoern Feuerbacher ([feuerbac@thphys.uni-heidelberg.de](mailto:feuerbac@thphys.uni-heidelberg.de))*

> *Subject: Re: Vestiges of Big Bang Waves Are Reported*

> *Newsgroups: sci.physics, gac.physics.astronomy, sci.astro,*

> *alt.astronomy, alt.sci.physics*

> *Date: 2005-01-14 04:30:02 PST*

>

> *SDR wrote:*

>> *Vestiges of Big Bang Waves Are Reported*

>>

>> *SAN DIEGO, Jan. 11 – Astronomers reported on Tuesday*

>> *that they had convincingly seen, in the patterns of*

>> *galaxies scattered across the night sky, the*

>> *vestiges of sound waves that rumbled through the*

>> *universe after the Big Bang. Stars and galaxies tended*

>> *to form along the ripples of the sound waves where*

>> *matter was slightly denser, and the pull of gravity was*

>> *slightly stronger. The ripples preserve a picture of the*

>> *universe when it was only about one million years old*

>> *and fit well with astronomers' ideas of how the universe,*

>> *which started smooth and uniform, became lumpy with*

>> *stars, gas clouds and other celestial objects. Two teams*

>> *of researchers analyzing the locations of thousands of*

>> *galaxies from two sections of the sky reported similar*

>> *findings on the sound waves at a meeting of the American*

>> *Astronomical Society here. Earlier research had found signs*

>> *of the ripples, but "we regard this as smoking-gun evidence,"*

>> *said Dr. Daniel Eisenstein of the University of Arizona, lead*

>> *investigator of one of the teams. "The important picture we*

>> *have of the universe is hanging together amazingly well,"*

>> *said Dr. Martin Rees, a professor of cosmology and*

>> *astrophysics at Cambridge University, who was not involved*

>> *with either team. "The standard picture is firming up."*

>>

>> *SDR: It is unfortunate that human beings almost*

>> *never consider how their prejudiced points of view*

>> *(reference) affect the interpretation of what*

>> *they're looking at. (When one looks at this same*

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- > > *evidence from the point of view that ours is an*
- > > *imploding universe this same evidence is as*
- > > *supportive if not more so of that conclusion than it is*
- > > *of the notion that it supports the notion of a Big Bang.)*
- >
- > *If you can quantitatively describe the observations with*
- > *your idea of an imploding universe, feel free to show your work.*

More pertinently answered below.

- > > *According to that picture, matter was evenly distributed in all*
- > > *directions for the first instant after the Big Bang. But then*
- > > *"bubbling caused by the physics of quantum mechanics" created*
- > > *slight imperfections, clumps that were slightly denser with*
- > > *ordinary matter, as well as dark matter, the unknown material*
- > > *that accounts for most of the mass in the universe.*
- > >
- > > *SDR: "bubbling caused by the physics of quantum*
- > > *mechanics" is a descriptive phrase which describes*
- > > *no understood meaning, since no one seems to*
- > > *understand how/why/wherefore this "bubbling" except*
- > > *to ascribe it NOT to the boiling of water.*
- >
- > *No. The usage of such a phrase is merely due to the fact*
- > *that this is a popular science article. In actual papers*
- > *published in peer-reviewed journals, the effect which is*
- > *called "bubbling" here is quantified in great detail.*
- > *If you ever had looked at the literature, you would*
- > *not come up with silly claims that this has "no understood*
- > *meaning".*

I was trying to match the silliness of the standard claim, which stems from guesses and self-evidently NOT from direct observation (I don't imagine you will claim you own a microscope capable of witnessing events at the quantum level, although you might... as I don't know you). The claim is derived from the very inability to directly observe the connecting dots, and therefore the silly claim that ours is a magical universe in which there are and can be any uncaused effects (obviously at ANY level because otherwise such uncaused effects would propagate upwards and we'd end up with elephants sharpening their trunks on pencil sharpeners & ice cream trucks). A violation of the laws of physics is a religious doctrine and ought not to play any part in science. Sir, any claim that there can exist at ANY level in our reality any uncaused effect comes about as a result of progressions of mathematical equations every level of which depends on the previous level agreeing with reality to perfection and, as I have already said, at some point in the process somebody seems to have missed the fact that in our reality there are NO uncaused effects (if garbage come into it, garbage will be what ultimately

comes out of it). But do not go back over the figures, because you are very likely to find the math to be flawless: The problem is not in the math but in the basic assumptions that the numbers really do stand for some reality more absolute than... reality. That's where the mistake lies.

> > *(It is*  
> > *but a "guess" of quantum theory rather than a*  
> > *directly observed effect, necessarily.)*  
>  
> *Wrong. Quantum fluctuations are an experimentally checked*  
> *phenomenon.*

I wonder whether you even know what you're trying to say at all: Quantum fluctuations is merely a description (an acknowledgement if you will) of our inability to predict such things as particle decay BECAUSE we are "forever" banned from the direct observation that would be required to connect the dots. The silly notion that because we may never have the means to determine the cause of every effect there are uncaused effects is an abomination to logic and reason... and, frankly, the heights of arrogance.

> > *Just as ripples spread out from a pebble dropped in a pond,*  
> > *sound waves spread out from the dense clumps, traveling*  
> > *about half the speed of light through the hot gas made of matter,*  
> > *which is composed of electrons and protons, and of photons, or*  
> > *particles of light. About 400,000 years after the Big Bang, the*  
> > *universe cooled enough that the charged electrons and protons*  
> > *combined to form hydrogen atoms, which allowed most of the*  
> > *photons to escape the hot gas. Several years ago, astronomers*  
> > *detected the sound waves etched by the photons.*  
> >  
> > *SDR: I was expecting to have to argue that any*  
> > *unitarian "pattern" across a substantial portion of*  
> > *the visible universe could be as much evidence of an*  
> > *imploding universe as of an "exploding" (or, Big*  
> > *Bang) one,*  
>  
> *Conveniently ignoring that the BBT provides a \*quantitative\**  
> *description of what is observed, instead of your qualitative*  
> *hand wavings.*

The fact that the world's greatest minds are quite capable of inventing equations with which to predict the movements of all the heavenly bodies FROM an assumption that the universe revolves around the earth... does NOT prove that the universe revolves around the earth. Sorry. There are many more observations which contradict the Big Bang Theory than there are observations that agree with it. And, frankly, because of what I have just said... were there millions of observation that support it and only a single one that puts it into question THAT

ought to be enough to put it into question until such time as the contradiction is resolved. But what usually happens is that every contradictory observation is "explained away" by inventing theories rather than finding facts (this is why we have such nonsense as the theories of "dark matter" and "dark energy" when Big Bang theory clearly demands that the acceleration of the universe either be slowing down or reversing).

There are no such contradictions in an assumption that ours is an imploding universe. The reason why Einstein's generation could not "see" it has to do with the fact that when the Big Bang notions were being contemplated they did not yet have our concept of matter being composed by ever more reducible sub-particles: Their notion of matter being absolute let Einstein to immediately discard any notion that the universe was in implosion because his idea of implosion was a pile-up of absolute "atoms" at the center of the universe (or, half, split atoms). His only options were that the universe was either expanding or that it was in steady-state (and he actually preferred it to be in steady-state, his infamous Lambada dance, because... what could possibly cause the universe to expand?!?! Until Hubble's observations said that the universe was expanding). Now... what must HAVE caused such expansion, Oh, I know, I know: some kind of an explosion (some really Big Bang). Ergo, the Big Bang was something which primitive scientists believed MUST have happened, and not anything real anybody stumbled over). Exactly like "dark matter" and "dark energy" nowadays. It has never been confirmed, and it never will BECAUSE every so-called proof that fits it like trying to bottle a cat... fits the implosion model like a kid glove.

- > > *since "mass/matter" falling towards a*
- > > *center point in an imploding universe would create*
- > > *"stretch ripples" (or "waves") looking not unlike the*
- > > *rings of Saturn as matter necessarily "averaged" away*
- > > *from a solidly massed body into "bands" of lower/higher*
- > > *densities.*
- >
- > *Then the ripples should be in the form of concentric spheres,*
- > *centered around your "center point".*

Are spiral galaxies seen to form as your spherical "doctrine" dictates? And yet I am saying it is the same effect might be producing both.

- > *This is not observed.*
- > *Bad for your idea, don't you think?*

I don't believe you have thought this through sufficiently:  
If my contention is that we might be seeing the localized effects of the Hubble Constant, then most such gatherings should be

under the same pressures what individual galaxies themselves are experiencing. And why they should not mimic them you would need to explain to me.

- > > *However this is not what is being described here*
- >
- > *Indeed. So, how can your idea explain what actually*
- > *is observed?*

I don't know whether you were reading what I wrote, but I said that this newly observed effect was not evidence for/against Big Bang/implosion. What I am saying is that it's likely to be patterns resulting from the "random" distribution of mass/matter densities (collections) very naturally producing these "apparent" concentric ripples because of the Hubble Constant. In an imploding universe everything is necessarily moving toward everything else and this law produced our solar system, and produces every spiral galaxy (if not all galaxies)... and now we can see structures which are many, many times larger than galaxies being produced by the same effect (and not every one necessarily spherically). The effect of the Hubble Constant would be to stretch out these structures in such a way that the densities would produce wave-like banding.

- > > *except as this effect hints at that (which I could*
- > > *not argue it does unless the "ripples" are shown to*
- > > *display a definite orientation they all agree to/with.)*
- >
- > *They don't show a definite orientation.*

Then it would be hard to argue that they have any bearing to/with any but the most localized effect (NOT a sign/hint that the universe is showing us its orientation... something which, by the way, the background radiation does show).

- > > *The sound waves continued to spread for an additional 600,000*
- > > *years, and when the last remaining photons escaped, the waves*
- > > *stopped, roughly 500,000 light-years from the dense clumps that*
- > > *produced them. When stars began to form, they tended to form*
- > > *around either the pebble-like clumps of dark matter or along the*
- > > *ripples. As the universe has expanded in the 13.7 billion years since*
- > > *then, the typical distance between ripple and clump has stretched*
- > > *to 500 million light-years. The new research shows the matter*
- > > *component of the early sound waves. Galaxies in the present*
- > > *universe are more likely to be 500 million light-years apart than*
- > > *other distances, Dr. Eisenstein said. One light-year is the distance*
- > > *light travels in one year, or 6 trillion miles. The pictures do not*
- > > *show sharply delineated ripples, because the ripples were small*
- > > *and many overlapping ripples emanated from many different*
- > > *clumps. "It's a much more subtle effect than that," Dr. Eisenstein*

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- > > *said. "It's like you've taken a handful of gravel and thrown them*
- > > *in a pond."*
- > >
- > > *SDR: Although computer models would be the only way*
- > > *to answer this, it's likely that this latest reported effect is*
- > > *somehow a macro result of the Hubble Constant*
- >
- > *Why is that "likely"?*

For all the reasons I have spoken of above (namely, that this effect reflects some local condition rather than a universal one).

- > > *(since, as*
- > > *I said before, it has not been reported [yet] that the "ripples"*
- > > *share any kind of universal bias/orientation which would lead*
- > > *us to conclude that what we are seeing is connected to any*
- > > *positive evidence either of an imploding or a Big Bang universe).*
- >
- > *Why on earth do you think that a universal bias/orientation*
- > *would be evidence for a BB?*
- > *You are right that this would indeed be evidence for your*
- > *assertion of the existence of a center.*

If a flat Big Bang universe doesn't have a center, what does?!

- > > *Statistical analysis (computer models) are therefore needed to*
- > > *better understand this effect.*
- >
- > *Hint: computer simulations of structure formation in the universe*
- > *have been done for well over a decade now.*

Well I want to do one to disprove that the Hubble Constant has anything to do with producing this particular effect, or that it does. And it's not as easy as simulating a handful of sand tossed on a smooth water surface because water tension & H<sub>2</sub>O molecules are not the same as gas clouds and sundry galaxies.

- > > *Including the possible disallowance*
- > > *that it's due to the Hubble Constant (any grouping of galaxies or*
- > > *even clusters of them in isolation from other groupings would*
- > > *necessarily also "display" ripples-like banding due to the fact that*
- > > *the farthest bodies from center would be receding from those*
- > > *centers faster than those closer to the same centers.*
- >
- > *centers? Plural?*

many ripples (plural, yes).

- > > *Dr. Eisenstein and his colleagues used information from*
- > > *the Sloan Digital Sky Survey, which is mapping galaxies*
- > > *with a telescope in New Mexico. The other team used data*

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- > > *from a project called the 2dF Galaxy Redshift Survey that*
- > > *is scanning the sky with a telescope in Australia. The research*
- > > *has also refined estimates on the amount of matter – 18 percent*
- > > *of matter is ordinary matter that makes up stars and planets,*
- > > *and the remaining 82 percent is dark matter. And it offers*
- > > *further evidence that the geometry of the universe is perfectly*
- > > *flat, where the angles of all triangles always add up to 180 degrees.*
- > >
- > > *SDR: Again an imploding universe would also be this flat.*
- > > *And the "refinement" on so-called "dark matter" above only*
- > > *"reflects" the fact that it is only in an imploding universe*
- > > *that we would observe such behavior WITHOUT having to*
- > > *invent some "invisible" anything to account for it.*
- >
- > *How does an imploding universe explain the rotation curves*
- > *of galaxies?*

It means that it is NOT the pull of gravity from their centers which rule the spiral structure but some outside impetus: In an imploding universe everything is necessarily moving towards everything else. In such a universe it would be ruled out that all galaxies must develop exactly the same way (given that they are not all created/managed by the same identical force—of gravity). Rather: The structure of any given individual galaxy would be ruled by whatever quantity and whatever kind of mass/matter happened to be concentrating into a galaxy at any particular/specific location, as well as the factored-in velocities of such gathering matter. Spin would most likely result at most locations, but not necessarily at every location (galaxy), so not all would end up as spirals (but you can see from this that you would not need any "dark matter" to explain why galaxies do not behave as they would were the sole/only force acting on them were gravity).

- > > *"It's more than confirmation of what we already knew from the*
- > > *microwave background," said Dr. Richard S. Ellis, a professor of*
- > > *astronomy at the California Institute of Technology and a*
- > > *member of the 2dF team.*
- > >
- > > *SDR: You'll be sorry, professor! Don't say I didn't warn you*
- > > *that it's not what the evidence says to God but what it says*
- > > *to some one or two very provincial fellows... necessarily*
- > > *looking at it from some always limited perspective.*
- >
- > *Can you explain all the existing data quantitatively with*
- > *your ideas? If yes, show your work. If not, shut up.*

My Goodness, what emotion! It's almost proof that you are not a scientist yourself but some institution administrator, no? But, what have I not explained already?! SEE:

<http://physics.sdrodrian.com>

Perhaps the old place needs an update soon. However, what I am describing IS the universe. Eventually every last Big Bang recreant will come around to it (who know, you yourself might live long enough to see this). It doesn't matter either way: We may think the world is the way we think it is, but it's really the way it really is. The truth can wait for us to catch up.

> > *As the astronomers look farther away and further back in time,*  
> > *the size of the ripples will decrease in size. The ripples could serve*  
> > *as a convenient yardstick to track the history of the universe's*  
> > *expansion. That could shed light on dark energy, a mysterious*  
> > *force discovered in the past few years that, at cosmological distances,*  
> > *is stronger than gravity and is causing the expansion of the universe*  
> > *to accelerate.*  
> >  
> > *SDR: No question that the implosion model must also find that*  
> > *the farther back in time we look the smaller the ripples must be*  
> > *found to be (also strictly a function of the Hubble Constant).*  
> >  
> > *It's no different than the quandary cosmology found itself in back*  
> > *when "simpler" people thought the universe revolved around the*  
> > *earth... and invented extremely clever equations with which to*  
> > *predict every least movement of every heavenly body. People seem*  
> > *to like nothing better than to make the same mistakes over and over*  
> > *again, only in slightly different ways... when all they'd have to*  
> > *do is*  
> > *follow a very basic principle: "If you must take a plane to take a*  
> > *step... somewhere, somehow, you are putting your foot in it."*  
>  
> *Can you explain all the existing data quantitatively with*  
> *your ideas? If yes, show your work. If not, shut up.*

My Goodness, what emotion! It's almost proof that you are not a scientist yourself but.... Oh, waitaminute, I think this is where I came in.

> *Bye,*  
> *Bjoern*

Good luck Bjoern,

S D Rodrian

<http://poems.sdrodrian.com>

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