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Replies: 43 Last Post: Sep 10, 2009 9:17 AM

Search Thread:

[Advanced Search](#)[Reply to this Topic](#)[Back to Topic List](#) [Jump to Tree View](#)Messages: [[Previous](#) | [Next](#)][Pentcho Valev](#)

Posts: 170

Registered: 12/13/04

Re: NEW COSMOLOGY?

Posted: Aug 18, 2009 2:00 AM

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Einsteinians know no limits:

<http://www.space.com/scienceastronomy/090817-dark-energy-alternative.html>

"Mathematicians have proposed an alternative explanation for the accelerating expansion of the universe that does not rely on the mystifying idea of dark energy. According to the new proposition, the universe is not accelerating, as observations suggest. Instead, an expanding wave flowing throughout space-time causes distant galaxies to appear to be accelerating away from us. This big wave, initiated by the Big Bang that is thought to have sparked the universe, could explain why objects appear to be farther away from us than they should be according to the Standard Model of cosmology. "We're saying that maybe these expanding waves are actually causing the anomalous acceleration," said Blake Temple of the University of California, Davis. "We're saying dark energy is not really the correct explanation."

Pentcho Valev wrote:

The fact that it is the speed of light, not the wavelength, that varies with frequency suggests that a universal principle called the Redshift Law might be valid:

$$f'/f = c'/c$$

where f' is the shifted frequency of light (at the moment of reception), f is the original frequency (at the moment of emission),

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c' is the speed of light relative to the observer (at the moment of reception), c is the speed of light relative to the emitter (at the moment of emission).

The variability of the speed of light and the constancy of the wavelength also imply that one should look for another reason (different from Big Bang ones) why the more distant galaxies are, the more redshifted light coming from them is. If, as it travels, the photon regularly bumps into something and so gradually loses its speed (this assumption has a lot to do with the tired light hypothesis), its speed will decrease proportionally to the distance (this reconciles Hubble's law with the idea of a static universe):

<http://arxiv.org/ftp/arxiv/papers/0806/0806.4085.pdf>

"However, it may be interesting to note that Hubble, even up to his final lecture before the Royal Society, always held open the possibility that the redshift did not mean velocity of recession but might be caused by something else."

<http://www.sciscoop.com/story/2008/10/30/41323/484>

"Does the apparently constant speed of light change over the vast stretches of the universe? Would our understanding of black holes, ancient supernovae, dark matter, dark energy, the origins of the universe and its ultimate fate be different if the speed of light were not constant?.....Couldn't it be that the supposed vacuum of space is acting as an interstellar medium to lower the speed of light like some cosmic swimming pool? If so, wouldn't a stick plunged into the pool appear bent as the light is refracted and won't that affect all our observations about the universe. I asked theoretical physicist Leonard Susskind, author of The Black Hole War, recently reviewed in Science Books to explain this apparent anomaly....."You are entirely right," he told me, "there are all sorts of effects on the propagation of light that astronomers and astrophysicists must account for. The point of course is that they (not me) do take these effects into account and correct for them." "In a way this work is very heroic but unheralded," adds Susskind, "An immense amount of extremely brilliant analysis has gone into the detailed corrections that are needed to eliminate these 'spurious' effects so that people like me can just say 'light travels

with the speed of light.' So, there you have it. My concern about cosmic swimming pools and bent sticks does indeed apply, but physicists have taken the deviations into account so that other physicists, such as Susskind, who once proved Stephen Hawking wrong, can battle their way to a better understanding of the universe."

<http://www.prlog.org/10252874-the-existence-of-dark-energy-is-moot-because-the-universe-is-not-expanding.html>

"The existence of Dark Energy is moot because the Universe is not expanding. Dark energy thought to be the cause of an expanding Universe is moot because cosmic dust is shown to produce the Hubble redshift measurements without the Universe expanding.... Given that Supernova light is unequivocally absorbed by DPs [dust particles] on its way to the Earth, the measured Hubble redshift Z is most likely caused by DPs and has nothing to do with an expanding Universe. Cosmic dust therefore makes moot the existence of dark energy because it is no longer necessary in non-expanding Universe. Cosmic dust also holds in question the Hubble redshift as the first and only proof that the Universe began with the Big Bang suggesting the new cosmological paradigm adopted at the forthcoming Invisible Universe Conference in Paris should be a return to Einsteins static Universe in dynamic equilibrium."

<http://cosmologystatement.org/>

An Open Letter to the Scientific Community
(Published in New Scientist, May 22, 2004)

"The big bang today relies on a growing number of hypothetical entities, things that we have never observed-- inflation, dark matter and dark energy are the most prominent examples. Without them, there would be a fatal contradiction between the observations made by astronomers and the predictions of the big bang theory. In no other field of physics would this continual recourse to new hypothetical objects be accepted as a way of bridging the gap between theory and observation. It would, at the least, raise serious questions about the validity of the underlying theory."

Pentcho Valev
pvalev@yahoo.com

Page 4 of 5

8/24/09	 Re: NEW COSMOLOGY?	Pentcho Valev
8/24/09	 Re: NEW COSMOLOGY?	Day Brown
8/26/09	 Re: NEW COSMOLOGY?	Pentcho Valev
8/31/09	 Re: NEW COSMOLOGY?	Pentcho Valev
9/4/09	 Re: NEW COSMOLOGY?	Pentcho Valev
9/8/09	 Re: NEW COSMOLOGY?	Pentcho Valev
9/10/09	 Re: NEW COSMOLOGY?	Pentcho Valev

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