

» Russell Humphreys replies:

Mr Mouton's first question is easy to answer: I've always regarded the 15 billion light-years as a *minimum* radius for the galaxies in the universe, because that is roughly as far as our telescopes can observe them. How far away the same galaxies are now depends on cosmological models. If the universe is not actually expanding, as both John Hartnett and myself now believe is likely,^{1,2} then those galaxies would still be at the same distance we see them now. In addition, God could have created lots of galaxies beyond 15 billion light-years. Maybe He wanted a radius of 100 billion light-years!

The second question is not as easy, because in the last decade big bang supporters have managed to thoroughly confuse themselves on the topic of redshift quantization, the bunching of redshifts, which is good evidence that (a) the cosmos has a geometric centre, and (b) our galaxy, the Milky Way, is near it. The Wikipedia review Mr Mouton cites is a good summary of how big bang supporters are thinking.³ Their confusion seems to come from several factors:

1. *Failure to distinguish between nearby and distant galaxies.* The last paper showing clear redshift quantization was by Napier and Guthrie in 1997,⁴ on which I based my 2002

paper.⁵ They studied *normal* galaxies that are relatively close to us, within roughly 100 million light-years. I've always had the impression that the very clear fine structure they reported is likely to wash out at greater distances, say, several billion light-years, so that only larger redshift intervals could be observed at the greater distances.

2. *Failure to distinguish between normal galaxies and quasars.* Whatever quasars (quasi-stellar objects, QSO's) are, it seems fairly clear that they have large 'intrinsic' redshifts that add to whatever distance-caused redshifts they probably have.⁶ The intrinsic redshifts could, and probably do, wash out any quantization in the distance-caused portion of QSO redshifts. All four of the redshift surveys the Wikipedia review cites after 1997 are either exclusively for QSO's or mix them in with normal galaxies indiscriminately. The reason is that QSO's comprise a lot of the larger redshifts (conventionally assumed to mean larger distances) they wanted to include in the studies. But because of that confusing factor, the four studies do not refute Napier and Guthrie.

3. *Failure to compensate for observer motion.* Napier and Guthrie compensated each redshift datum for the Doppler shift due to the sun's rapid motion around the centre of our galaxy, converting 'heliocentric' redshifts to 'galactocentric' redshifts. This procedure brought out the quantizations very clearly. One year earlier, William Tifft, the discoverer of redshift quantization, showed that good results came^{7,8} by compensating for our galaxy's 600 km/second motion with respect to the cosmic microwave background radiation.⁹ As far as I can see, the later papers neglect to do this chore, perhaps not realizing its importance.

Contrary to some critics, the Napier and Guthrie study was not within a narrow 'cone' of observations; they included all normal galaxies within about 100 million light-years of us.

I'm convinced their study is still valid: redshifts from nearby normal galaxies are clearly quantized.

Because of the above confusions, the later studies have not refuted the possibility for redshift quantization (with larger intervals) at greater distances either. The Wikipedia article, in quoting a negative statement from a 2008 review, failed (because of bias?) to include this statement from the abstract of the same review:¹⁰

"We conclude that galaxy redshift periodisation is an effect which can really exist."

John Hartnett has a good online study of the larger-distance redshift data.¹¹ He gives compelling evidence for large-scale redshift quantization. The confusion of big bang supporters—most of whom who have a strong desire not to find evidence for a cosmic centre, and especially not for us to be near it—is no reason for us to back away from this powerful argument for a Creator.

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References

1. Hartnett, J.G., Does the Bible really describe expansion of the universe? *J. Creation* **25**(2): 125–127, 2011; creation.com/bible-cosmological-expansion.
2. Humphreys, D.R., New view of gravity explains cosmic microwave background radiation, *J. Creation* **28**(3):106–114, 2014.
3. Wikipedia, Redshift quantization, January 2015, en.wikipedia.org/wiki/Redshift_quantization.
4. Napier, W.M. and Guthrie, B.N.G., Quantized redshifts: a status report, *J. Astrophys. Astr.* **18**:455–463, 1997; www.ias.ac.in/jarch/jaa/18/455-463.pdf.
5. Humphreys, D.R., Our galaxy is the centre of the universe, 'quantized' red shifts show, *J. Creation* **16**(2):95–104, 2002; creation.com/our-galaxy-is-the-centre-of-the-universe-quantized-redshifts-show.
6. Hartnett, J.G., Quasar with enormous redshift found embedded in nearby spiral galaxy with far lower redshift: unsolved riddle for big bang astronomy, *creation.com* feature article, 12 January 2005; creation.com/quasar-with-enormous-redshift-found-embedded-in-nearby-spiral-galaxy-with-far-lower-redshift.
7. Tifft, W.G., Evidence for quantized and variable redshifts in the cosmic background rest frame, *Astrophysics and Space Science* **244**(1–2): 29–56, 1996.
8. Tifft, W.G., Redshift quantization in the cosmic background rest frame, *J. Astrophys. Astr.* **18**(4):415–433, 1997; www.ias.ac.in/jarch/jaa/18/415-433.pdf?origin=publication_detail.

9. Humphreys, ref. 5, p. 103; see ref. 28.
10. Bajan, K. *et al.*, On the investigations of galaxy redshift periodicity, *Physics of Particle and Nuclei Letters* **4**(1):5–10; arxiv.org/pdf/astro-ph/0606294.pdf.
11. Hartnett, J.G., Our galaxy near the centre of concentric spherical shells of galaxies, 26 May 2014, johnhartnett.org/2014/05/26/our-galaxy-near-the-centre-of-concentric-spherical-shells-of-galaxies/.