Uniformity in a Finite Universe

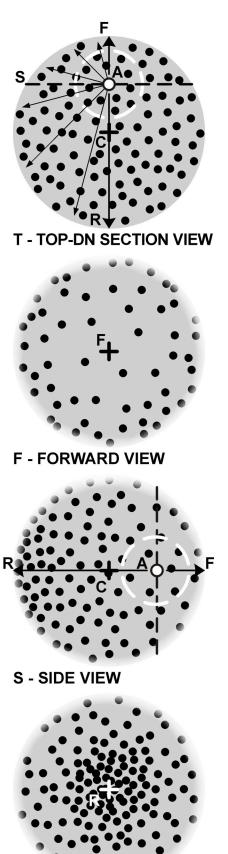
Kenneth Gonder kgonder0@gmail.com 5/8/2022 (Gonder, viXra, Uniformity in a Finite U O1A 7a.pdf)

Abstract

A finite universe that was uniform, homogeneous and isotropic at the largest scale, would exhibit a distinct visual pattern of galaxies arrayed across the sky that would confirm its finiteness. It'd have fewer galaxies when looking outward toward its perimeter and more galaxies looking in the opposite direction inward toward its interior. But we don't see it. If it was expanding, cosmological redshift would correlate with the pattern. We don't see that either. This simple, obvious, undeniable fact of basic three-dimensional geometry by itself completely undermines big bang orthodoxy. But it remains unrecognized.

Observation

If we start with the assumption that our universe is finite and it's expanding and that it can express uniformly, which in reality isn't physically possible in three dimensions but let's go ahead and assume it anyway for the sake of argument because uniformity is what we observe. If we also assume that we didn't end up by chance at the universe's exact center but were located for convenience about halfway between the universe's center, **C**, and its expanding perimeter, **F**, at **A** in diagrams **T** on the next page that portrays a top-down section view through our universe. Then we'd see a condensing, two-dimensional array of galaxies across the entire sky, represented by the black dots beginning in diagram **F**, that was least dense in the direction of our outward-bound direction of travel toward **F** where the universe's perimeter would be its closest. That's where the fewest number of galaxies would be.

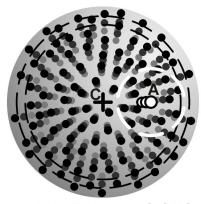


R-REAR VIEW

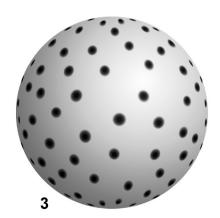
If we were to sweep around from **F**'s forward-looking view through **S**'s side view and look to our rear in the direction of **R**, as suggested by the sequence of smaller arrows in diagram **T**, the visual two-dimensional density of galaxies across the sky would keep increasing, peaking exactly opposite our outward-bound direction of travel in the direction of **R** through the universe's origin at **C**, as depicted in diagram **R**. That's the direction where we'd find the greatest number of galaxies. We'd see this same pattern whether our presumed finite, uniform universe was expanding or not.

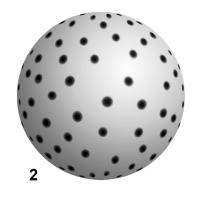
If our universe was diffusing with expansion and condensing from gravity as it'd have to be if it were actually finite because of a sphere's inherent geometry that includes the inverse square law, it'd still express the same array of galaxies across the sky. It'd just be more exaggerated, more dispersed in the forward direction, **F**, and more condensed in the rear direction, **R**.

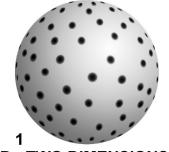
Applying cosmological redshift to galaxies from the universe's assumed stretching/expansion, whether it was uniform or diffusing and condensing, we'd get an exact correlation to the pattern. The highest redshift would be directly opposite our direction of travel where the galaxies would be at their farthest and densest and be receding the fastest. And the lowest redshift would be in front of us in the direction of our travel where the fewest, closest, slowest receding galaxies would be.



3D - THREE DIMENSIONS: RADIAL EXPANSION







2D - TWO DIMENSIONS: UNIFORM EXPANSION

What we actually see though is a uniform, homogeneous/isotropic distribution of galaxies and their redshifts. This explicitly indicates an infinitely vast and ageless cosmos where cosmological redshift originates from a source other than universal stretching/expansion.

Arguing that there must exist a visible horizon that limits our view to a certain distance, indicated by the white dashed circle around our position at **A** in diagrams **T**, **S**, and **3D**, where all we can see is uniformity doesn't work. Even if we set aside the fundamental incompatibility of uniformity and finiteness due to real world exponential diffusing and condensing from spherical geometry's inverse square law, expansion in three dimensions is innately radial, as portrayed in diagram **3D**. It cannot express uniformly. And it would be easily perceivable whatever our location in the universe.

The only way to maintain uniformity is theoretically with Einstein's curving non-Euclidean, finite yet somehow unbounded universe. With expansion, it's become the big bang. It expresses two-dimensionally like the surface of a sphere so its galaxy's can remain uniformly distributed as it expands, as depicted by the sequence in diagram **2D**. But there's no existence in two dimensions. Two dimensions can only define the location of a plane. So it doesn't work either. We're still left with an infinite universe that requires a practical explanation for cosmological redshift.

^{1.} Albert Einstein, *Relativity: The Special and the General Theory.* 15th ed. (NY: Three Rivers Press, 1961), 122-127.

Conclusion

The inherent properties of a theoretically finite, uniform, expanding universe that's actually three-dimensional would quickly reveal its origin's existence and location and decisively confirm its expansion and finiteness. The fact that we don't see even a hint of any arrayed condensing across the sky clearly indicates that the big bang is a fallacy and that cosmological redshift and cosmic microwave background radiation must originate from a source other than universal stretching/expansion and its primordial conditions.

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