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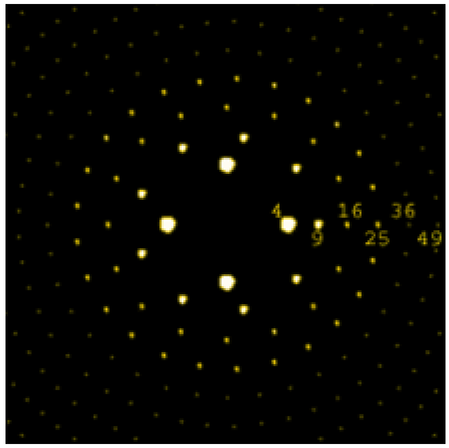
Olbers' Paradox



by Miles Mathis

Due to its easy solution, Olbers' Paradox is not one of the most interesting topics in physics, in my opinion. However, since my "easy solution" is not the same as any historical solution or any now given, it may be worth publishing.

Olbers' Paradox concerns the darkness of the night sky. Olbers said that if we have an infinite and eternal static universe, the night sky should be bright, since a star should inhabit every direction. This has been used a proof against the static universe, and as proof of an expanding universe. The current solution to the paradox uses the Big Bang model to explain the dark sky. Distant light is redshifted out of the visible spectrum. However, that explanation is not necessary.

The old explanation of Poe and Kelvin is also not necessary. They proposed a finite universe with a finite age, and with a density low enough not to fill all directions in space along our lines of sight. That explanation is a bit closer to mine, but it is not the same.

The Steady State solution also uses redshifting by thermalization, but that theory also isn't necessary.

The simple solution has to do with how the light is emitted by spherical bodies. I have already used this to explain twinkling, as you can see by going to that paper. Real bodies that emit visible light are either spherical in the case of stars, or spherical or spiral, in the cases of collections of stars (galaxies, etc). Even in the case of spiral galaxies, it is the core that emits the brightest light, and the core is roughly spherical. So in all cases, we would expect a dimming of light with distance. As the light leaves the surface of the sphere, it must spread out in all directions, losing density. Since light is made up of discrete particles—photons—it cannot maintain its emitted density.

Most of the brightness of the night sky is made up of local stars, in our own galaxy. These stars are relatively close to us. The number of these stars is not infinite, and their density is low enough that a dark sky is no problem to explain. We only get appreciable brightness when we get high densities, as toward the core or in the band of the Milky Way. This part of my explanation is similar to Poe's explanation, since it relies on density and finite numbers.

However, it *also* requires spherical emission. If our own Milky Way stars were not spherical, but were instead cubes, say, the brightness of the night sky (in some positions) might be much greater than it is. For instance, if the galactic core were a cube, and if we inhabited a position in the galaxy perpendicular to one of the six faces, we could see a greatly increased brightness.

But back to the given problem. As you now see, the gaps between our own stars have to be filled by other *galaxies*. Amazingly, the current explanations never admit that. Go to the page at Wikipedia, and you will see that none of the explanations admit that. We can't see individual stars in others galaxies, and if the light from those stars weren't combining with the other stars in those galaxies, which seem to us to be on the same line of sight, we couldn't see their light at all. They would be too dim. Why? Nothing to do with redshifts. We couldn't see individual stars in Andromeda Galaxy, the nearest one, and it has nothing to do with redshifts. It has to do with distance and spreading of light. Yes, we would expect to get a few photons from those individual stars. But a few photons won't register with our eyes. Darkness isn't zero photons, it is photons below a certain number. We simply don't get enough photons from those individual stars in Andromeda to register, and if we weren't seeing the entire galaxy in one spot, we wouldn't see it. That spot has some minimal brightness only because that spot contains billions of stars.

We should have already known that, since the redshift from Andromeda isn't enough to explain how dim it is, even according to current theories. Redshifts are mainly used on very distant galaxies, and Andromeda isn't very distant, relatively. Andromeda is dim simply because its light has spread out between here and there. We are seeing only a tiny dot of light on its emitted surface, and that emitted surface is billions of times less dense than it was at the edge of Andromeda.

Now, if we apply this to even more distant galaxies, we get a power (exponential) dimming even with no talk of redshifts. At some given distance, an entire galaxy will send us no more light than a single star in Andromeda, and at that distance, the entire galaxy will be dark to us. For this reason, galaxies don't add greatly to the overall brightness of the sky. The given brightness is mostly due to our own galaxy, and I have already shown why that creates no paradox.

Brightness must fall off by distance, and that is true even without any ether, any blocking, any redshifting, or any expansion. Brightness falls off only due to spherical emission, which decreases photon density with distance.

This is not a difficult concept, and it occurred to me within seconds of first reading Olbers' Paradox, so why is it not the default explanation? I assume it is because mainstream physicists have spent a lot of time and effort suppressing it. They prefer to use Olbers' Paradox to support redshifts and their own Big Bang theory, and my simple explanation takes that away from them. In this way, the manufactured paradox is like hundreds of others: nothing more than misdirection.

Ironically, it is gravity lensing that would cause an evenly bright sky, not Olbers' Paradox; so the mainstream is actually using a fake paradox as proof of the Big Bang while ignoring a paradox created by their own theories. I have shown that there is no reason all objects shouldn't be lensing, creating haloes everywhere. This would tend to diffuse all light, causing a diffuse brightness in the sky, instead of pinpoint brightness. That isn't really a paradox, it is just an ignored error, but the mainstream likes to use theories when they are convenient and ignore any pesky side-effects or logical outcomes.

Mainstream physicists have the amazing ability to look directly at negative data and not see it, even when it takes no real perspicuity to see it.