

Friday, December 8, 2017

Olbers' paradox Supermoon phases.

A cool blog post about something relative to 5D i ve learned, some weeks before ..

it's a surprise to observe in live without having imagined the phenomenon happens this morning:)



[flic.kr/p/CCFtDn](https://www.flic.kr/p/CCFtDn)

Image deliberately poorly taken to keep the sky bright in the photo.

Still attracted by the super moon.

This blog will be updated according to its phases.

Olbers paradox Captation deep black sky even if it' s the morning.

So weird.

Fineness of time or space..

We can first assume, like Kepler in his 1610 pamphlet, Conversation with the Heavenly Messenger, that the universe is finite or at least contains a finite number of stars.

Another solution suggested for the first time by the writer and poet Edgar Allan Poe and independently a few years later by the French astronomer François Arago advances the fact that if the universe has a finite age, then the light traveling at a speed great but finite, only a finite region of the universe is accessible to us, which is reduced to the solution proposed by Kepler.

Solution given by modern cosmology.

The theory of general relativity predicts the instability of the universe: Expansion or contraction.

As a result, it is possible that the age of the universe is over, which would suggest that the explanation of Poe and Arago is the right one.

Indeed, the main cause explaining the Olbers paradox is the finite age of

the universe: the light of most stars has not had time to reach us.

Another effect also gives an explanation for Olbers' paradox, but is minor compared to the main explanation.

Due to the expansion of the Universe, light from distant galaxies is shifted to red.

Thus, the emission light spectrum of these galaxies appears to us as gradually turning in the light frequencies that we can no longer see: typically infrared.

This means that light from these galaxies has less energy than the same galaxies at the same distance if the universe was not expanding.

Thus, the most distant galaxies are extremely difficult to observe.

Even if the universe were eternal and infinite but expanding (as in the theory of the quasi-stationary state), the surface brilliance of the most distant stars would decrease with distance.

The phenomenon is also true in Big Bang models.

This rapid decrease in the luminosity of the galaxies as a function of the redshift is actually observed, which helps to solve the Olbers paradox and validates this prediction of general relativity.

Metaphorically, the sky is indeed "clear" (of fire) , but this radiation is shifted towards the red (the low frequencies) such that the celestial clarity is in the microwaves, of a thermal radiation with 2.76K (-270.1 ° C), and not with 3000 K , average temperature of stellar radiation.



The sky is thus plunged into darkness, in visible light.



This background radiation comes not from superimposed distant galaxies, but from primordial uniform gas when it became transparent around 3000 K after ~ 380 000 years ago.

At that time, Heaven was Fire! He was like the surface of a star.

With what i work:

800mm / F 8.0 MIRROR / CASSEGRAIN SYSTEM

Without tripod even if i have one just because it's not there.

Cyber tips + Researches:

This mirrored lens, called catadioptric, of the Cassegrain type, works on a principle different from that of the so-called dioptric lenses.

The fact of not using refraction elements (lenses) gives him many advantages.

First, it is exempted from lens-induced aberrations, including chromatic aberration, which causes bright edges around the edges of objects that contrast with the background, and which also distorts sharpness.

This is why mirror systems are used by large telescopes.

Hubble is one, that the next James Webb to place in orbit in 2018) are suitable for large focal lengths.

The most effective area of a mirror is near the edges, and that of the lenses is towards the center.

NEWTON SYSTEM

The image is reflected in the mirror placed at the bottom of the telescope, is returned to a small mirror placed in the center at 45 degrees, close to the mouth of the telescope, and collected by a lateral eyepiece, also close to the mouth

CASSEGRAIN SYSTEM

The image is reflected in the mirror of the background which has an effect on the medium to be able to place the eyepiece. It is reflected in the secondary mirror (for the forehead) to finally go to the sensor of the camera (or to the telescope eyepiece) placed in a tube in the center of the main mirror. As a result, it makes one and a half times the return trip between the bottom mirror and the sensor, which makes it possible to divide by three the length of the lens with respect to its lens equivalent.

The processing of mirrors requires for their manufacture less technology than that of lenses and for a superior result, which allows a lower price to same power. On the other hand, we have neither diaphragm nor zooms for mirror lenses.

The brightness adjustment is only made by the shutter speed or the ISO sensitivity. Given the distance between the focal length and the diameter, the brightness is greatly reduced. An F8 in this type of lens is a fairly common value.

Higher brightness requires a larger diameter, which is the price. That said, for this purpose a clear image requires strong lighting.

As this type of things are not done outdoors, usually the day is not a problem, but the low speeds required, as well as the long focal length, requiring a firm and sturdy tripod as well as a remote control or exposure

delayed to avoid touching the case.

The dive is correct but the difficulty of a solid grip may cause microscopic sludge that can be interpreted as a lack of dive.

Images taken with a focal lens are characterized by a fuzzy background. Blur is considered foreground.

The objective is correct for videos with the telephoto effect, effect very exploited by the cinema.

A cinematic stereotype where the characters evolve towards the goal while giving the impression of remaining on the spot.

This effect is often combined with an idle reward.

This content, or the price of one or more of the same, requires a very bright day.

I insist that for video with this kind of lens, the tripod is essential.

Given that there is no zoom on the Cassegrain, if you want to crop you need to plan a big trip forward or backward, the car the great focal distance flattens the distances and a few steps will not be enough as with a big angle.

Posted by [Veronica IN DREAM](#) at 12:22 AM