Saturday, June 13, 2020

Venus. Exemple on morphological dilation operation on a grayscale image.

The entire radio spectrum is of interest for Astronomy and Cosmology, but for technical reasons the frequencies observed are limited to the interval between 1 MHz and approximately 1000 GHz.

Radio astronomy plays an essential role in the study of the problems of fundamental physics and cosmology.

Many of the phenomena studied cannot be studied in other parts of the electromagnetic spectrum.

Here an example: the emission line of neutral atomic hydrogen.

The radiation of the cosmic microwave background and its angular structure, which plays a fundamental role in cosmology.

The regions of synchrotron radiation associated with radiogalaxies.

The regions of star formation obscured by dust in the optical frequencies.

Thanks to radio frequencies, it is possible to obtain the best angular resolution and to measure with maximum precision the positions angular as well as the spectral lines and their Doppler shifts.

For this reason, Radio Astronomy, far from being a simple complement to conventional optical techniques, plays a major role in research work carried out in many fields of astronomy and astrophysics.

In addition, radio astronomy, like all basic Sciences, stimulates development in other areas.

Thus, it is to Radio Astronomy that we owe the development of receivers

and antennas with low noise, which make it possible to receive signals of different polarizations by means of a single antenna.

Methods developed within the framework of Radio Astronomy to fight against radio echo are today used with success in WiFi type mobile communication systems.

The foundations of radio navigation theory, which are used today in various systems, have been developed and confirmed in radio astronomy.

The need to process large volumes of data in radio astronomy has led to major improvements in the field of automatic data processing and in particular the development of methods for parallel data processing and new programming languages.

In the medical field, Radio Astronomy is at the origin of X-ray diagnostics and computer tomography.

All of this shows how important it is to recognize and protect, internationally, the radio frequencies used in Radio Astronomy.

## Unveiling the invisible Universe.

Light is only part of the electromagnetic spectrum which extends from gamma rays to radio waves so, as nature is well made, gamma rays, X rays, harmful to the body and at high energy, are stopped by the atmosphere of Earth.

Radio waves have more freedom to pass through these layers with more or less absorption depending on their frequency.

Radio waves are broken down into several frequency ranges (we find them on radio receivers)

Among them, we have the big waves, the medium waves, the FM of your favorite radio station. We use this every day, sometimes without knowing it, on our communicating devices.

We have more and more wireless devices and we will have more in the future.

The electromagnetic spectrum is a resource, not extensible, which must be used sparingly, which it is necessary to know how to protect in the same way as the Night Sky.

This is what allowed me to make most of my sky samples.

I did not have all the correspondences, until December 2019 (This approach was using the shape of the energy profile and highlights a substantial entropic effect of water) and after having understood that, it became so cool since I did not have access to my material, but in fact, it really taught me interesting and useful stuff.

What will bring a key role of all these data in my future of research and creations.

Now that this point is made: It is easy to check my tree writings technique by bridging my research and conclusions etc.

I'm trying to arrange my video, using this writings and my reply to an open call in NY at a SciArt exhibition, and as experimental research ONLY since my stages in Paris did not take the classic paths.

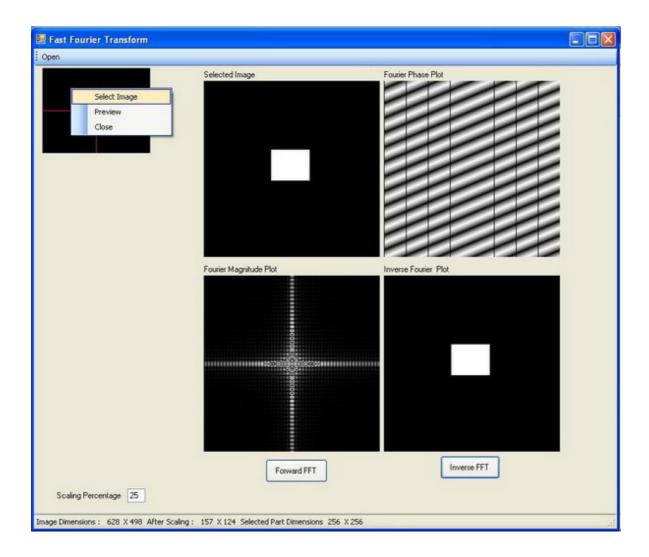
I have try so there are many studies which are organized in trees so my way of working.

It was not simple by following the explanations which finally arrive on the complexity of doing it under special conditions but if I observe it in another angle: it can be useful if it leads to having to react to useful ends like solutions to be found in situations that are not necessarily normal.

So even if what happened was really steep, I have to use everything as skills or methods, even if I admit that I am currently really super weakened

by that by following what I will explain at the bottom.

It is good that I can finally provide informations because I was totally unable to work and write, currently experiencing for months, situations that really put me in trouble.



The discrete-time Fourier transform (DTFT) is a form of Fourier analysis that is applicable to a sequence of values.

The fast Fourier transform (FFT) is an algorithm for computing one cycle of the DFT, and its inverse produces one cycle of the inverse DFT.

Used to produce a grayscale dilation of an image involves assigning to each pixel, the maximum value found over the neighborhood of the structuring element.

In digital photography, computer-generated imagery, and colorimetry, a

grayscale or greyscale image is one in which the value of each pixel is a single sample representing only an amount of light; that is, it carries only intensity information.

Grayscale images, a kind of black-and-white or gray monochrome, are composed exclusively of shades of gray.

The contrast ranges from black at the weakest intensity to white at the strongest.

Grayscale images are distinct from one-bit bi-tonal black-and-white images, which, in the context of computer imaging, are images with only two colors: black and white (also called bilevel or binary images)

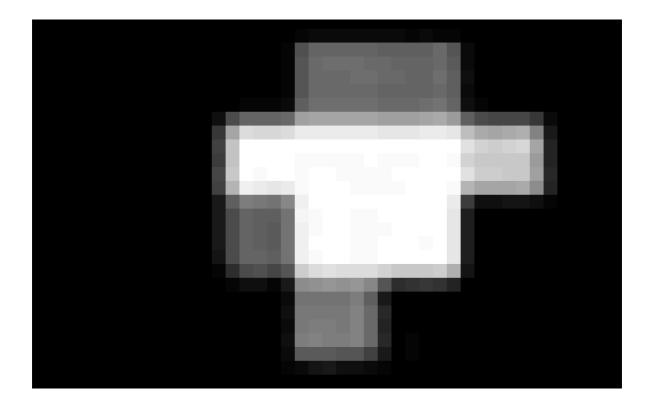
Grayscale images have many shades of gray in between.

Grayscale images can be the result of measuring the intensity of light at each pixel according to a particular weighted combination of frequencies or wavelengths, and in such cases they are monochromatic proper when only a single frequency so in practice, a narrow band of frequencies captured.

The frequencies can in principle be from anywhere in the electromagnetic spectrum (e.g. infrared, visible light, ultraviolet, etc.)

A colorimetric or more specifically photometric grayscale image is an image that has a defined grayscale colorspace, which maps the stored numeric sample values to the achromatic channel of a standard colorspace, which itself is based on measured properties of human vision.

If the original color image has no defined colorspace, or if the grayscale image is not intended to have the same human-perceived achromatic intensity as the color image, then there is no unique mapping from such a color image to a grayscale image.



## Infos

Since April 16 I have been able to do the re-organization (it remains to do a final part of layout and transmissions) of all the informations for the Parisian administrative network while my Embassy blocked them since my arrival.

yes: Incredible but true.

So, since I study always in tree structure, it is far from being easy to transmit information as I use it in the sense that: must be able to hold all the sources of informations relative to each other to prove the principle of a problem.

A socio-economic structure and a psycho-social structure being included in my theories, and, I hadn't imagined that I would be the own subject interpreted in this type of demonstrations.

So yes, it is in Paris that many things have changed but I could not carry out two whole years of work with Observatory of Paris and I can not realize for the second time, the tests of skills, this which is a shame but it is strictly impossible as a result of the complexity of the situation caused by the Embassy.

Monday June 15, 2020 there is a deeper administrative examinations and there are interlocutors of higher levels in charge of allowing me to request the closure of all possible sources of problems with the Embassy, in the future and therefore as soon as possible, my departure from Paris, my move and that is near.

This is linked Infos

I will prepare the use of these experimental results and therefore in all areas to support my achievements anyway and therefore support the value of all this while the embassy really crossed out all our stay and it became really super scratched without the subsidies.

These writings do not seem very relative but if check further in my blog, it is easier to match the different informations.

I recognize that it is not my best way to feel my assets therefore to transcribe them.

The post-traumatic stress conditions since April 16 have had a fairly strong impact.

In order to understand, it is the importance of the situation on my affect

Posted by Veronica IN DREAM at 6:51 PM