Subject: Re: Scale the psf on images.
Posted by                   on Mon, 12 Jan 2015 10:42:27 GMT
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Den måndag 12 januari 2015 kl. 09:15:23 UTC+1 skrev anes.tz...@gmail.com:
> Hi
>
>       I would like to perform a live test during an upcoming observing run. I want to take a series
of frames on various sources and check for variability on them. I would like to make the image
subtraction as accurate as possible, thus I think that image subtraction should take place after the
psf of the frames is matched.
>
>       Which technique you think is the best? I tried with the convolve script but the result is not
good.
>
> imconv = convolve( image1, image2, FT_PSF = psf)
>
>     image 1 the science frame and image is the psf frame that I created through iraf.
>
>       Any suggestions are appreciated
>
>       Thanks a lot.

A dirty trick you could try:

Compute the Fourier transform of both images, calculate phases and amplitudes from the real and
imaginary parts of the transforms. Then substitute the amplitude in one of the images with that
from the other. For the one you changed: go back to real and imaginary form, then compute the
inverse transform.

The reason this might work is that the Fourier amplitude has most of the PSF information, while
the phase has most of the information about the scene.