Subject: Re: Scale the psf on images.
Posted by on Thu, 15 Jan 2015 15:08:45 GMT
View Forum Message <> Reply to Message

Den torsdag 15 januari 2015 kl. 14:33:34 UTC+1 skrev anes.tz...@gmail.com:
> On Monday, January 12, 2015 at 4:15:23 PM UTC+8, anes.tz...@gmail.com wrote:
>> 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.
>
> Well the observations are on Fermi sources at optical bands. We want to take a series of frames for every source and check if there is variability. The variation of the psf will be hopefully small, but since the expected variation is low as well (0.1-0.2) magnitudes, I want the best possible accuracy on the image subtraction.

I can't of course promise you that this is going to give the best accuracy or even that it will work. Depends on your data. I just suggested it again because if it does what you need, it would relieve you from learning enough to do the proper convolution and filter thing.

So try it if you are in hurry. Disregard it if you'd rather do it properly and know what you are doing. The danidl stuff that bstecklu linked to looks interesting, I might want to look into that myself at some point.

> I guess i want the equivalents of abs(c[0:99]) and phase=atan(imaginary(c),float(c)) in the psf images and then do the thing you said on your first comment?

Yes and no. It is those operations but with that dirty trick you operate on the images only, you don't involve the psfs. You make image2 look more like image1 by replacing the Fourier spectrum of image2 with the one that belongs to image1.