
Subject: Re: Uneven background removal
Posted by [Craig Markwardt](#) on Mon, 09 Apr 2012 13:04:20 GMT
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On Monday, April 9, 2012 3:19:15 AM UTC-4, arun wrote:

> Hi there,
> I am having difficulty while removing the dark patch of the H-alpha image. I wish to remove that. The dirty image is put for reference on the link:
>
> www.prl.res.in/~awasthi/Files/5_9_1.jpg

It's unclear if you are trying to remove a dark patch like the one near $(X,Y) = (110,85)$? or do you mean the dark horizontal band? Since your (probable) signal and (probable) background are of comparable amplitudes, the job will be quite difficult. I don't think there will be a fool-proof recipe that anybody could give to you on a newsgroup.

If you want to remove the band, I think you could retrieve an average of each row, and then subtract that value from each row. Unfortunately, that may subtract some of the signal.

If you want to get more sophisticated, then it might be better to look for step-function jumps in the row averages (i.e. discontinuities), and then remove those.

Even better, try to find out if your instrument has calibration dark frames which you could use for subtraction.

Best wishes,
Craig Markwardt

Subject: Re: Uneven background removal
Posted by [arun](#) on Tue, 10 Apr 2012 15:15:14 GMT
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Hello Craig,

Yes, you are correct. It was confusing but you got it correct. I wish to remove the Horizontal band of darkness.

Actually the last choice you gave is really the best one but what I got here is that the patch remains even after I correct it by dark (in this link):

www.prl.res.in/~awasthi/Files/dark.jpg

If I plot the histogram, I see that background in the dark is half of that in the rest. Now how to remove that is a trick on which probably you please shed some light.

I am going to apply the other tricks given by you and the post the results if positive.

With A Lot of Thanks
Arun

Subject: Re: Uneven background removal
Posted by on Tue, 10 Apr 2012 19:16:42 GMT
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Den tisdagen den 10:e april 2012 kl. 17:15:14 UTC+2 skrev arun:

- > Hello Craig,
- > Yes, you are correct. It was confusing but you got it correct. I wish to remove the Horizontal band of darkness.
- > Actually the last choice you gave is really the best one but what I got here is that the patch remains even after I correct it by dark (in this link):
- >
- > www.prl.res.in/~awasthi/Files/dark.jpg

That dark frame is actually brighter in the band where the image is darker, so subtracting it must have made it worse instead of better. I assume you have checked that you didn't happen to change the sign. Do you also have a gain table/flat field in your calibration data?

Do your H-alpha images from this detector always look like that or is it just this data set?
