
Subject: Re: CCD saturation

Posted by [Marshall Perrin](#) on Fri, 24 Oct 2008 22:23:15 GMT

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Wox <wout.de.nolf@gmail.com> wrote:

- > Hi all,
- >
- > Does anyone have any experience in correcting images for saturation
- > streaking? See image b in
- > [http://learn.hamamatsu.com/articles/images/bloomingfigure1.j pg](http://learn.hamamatsu.com/articles/images/bloomingfigure1.jpg)
- >
- > I tried to do something with IDL's sobel+contour but it seems hard to
- > preserve the spots without streaking while removing the saturated ones
- > along with its stripes. Any ideas?

Shape detection is not the way to go here, versus detecting the level at which pixels saturate. There should be some characteristic number of counts per pixel below which you know data is not saturated.

Bear in mind there is no real way to do more than cosmetic corrections to such images. Whatever pixel values were originally 'underneath' the saturation streaks are now permanently lost. So you can make a prettier picture if you want, but for quantitative photometry or other analysis you'll have to consider alternate approaches. In some cases, like for HST ACS, the total number of counts from a source is preserved, even as the light gets smeared out into the wrong pixels.

- Marshall
