
Subject: Re: ratio imaging

Posted by [gerhard.holst](#) on Tue, 12 Mar 2002 08:28:03 GMT

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Craig Markwardt <craigmnet@cow.physics.wisc.edu> wrote in message news:<on1yev3r9q.fsf@cow.physics.wisc.edu>...

> Dan Larson <drl16@cornell.edu> writes:

>> I am trying to do simple ratiometric
>> imaging with IDL. Of course, since
>> there is some pixelation noise, the
>> ratio is not very robust. I have
>> experimented with a number of
>> different filters (median, Gaussian
>> deconvolution, smooth) to try and
>> remove some of this instability.
>> Is there a filtering technique which
>> is minimally perturbative that will
>> remove some numerical artifacts
>> without changing the boundaries of
>> objects?

>

> Dan, you should be filtering the two images, *before* computing the
> ratio, right? I would have said that goes without saying, but now I
> am saying it. [The reason of course is that the ratio does not have
> a nice compact statistical distribution, so averaging is less
> robust.]

>

> Craig

Dan,

if you are looking for more edge preserving filters you might
search for topics like "Savitzky-Golay" and "LOESS", both are
filters that might consume a little more time in calculation
(especially the LOESS I have found on the web, if you are interested
I can look for the link), but they do a good job in smoothing
while edge keeping, much better than boxcar, median etc.

Gerhard
