Subject: Re: ratio imaging
Posted by Dan Larson on Tue, 12 Mar 2002 16:54:43 GMT
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In article <9fe17a3c.0203120028.1a7caf67@posting.google.com>,
gerhard.holst@pco.de says...
> 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 artificats
>>> 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 your 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
>
Gerhard,

I am familiar with the Savitzky-Golay filter, but I have never used
the LOESS filter. If you have an implementation that you like, I
would like to hear about it. Do you know what the acronym stands
for?

Dan