Subject: Re: Definition of Median was(Re: Finding the index of the median)
Posted by kgb on Tue, 05 Nov 1996 08:00:00 GMT
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In article <31OCT199600081707@sorbet.gsfc.nasa.gov>, landsman@sorbet.gsfc.nasa.gov (Wayne Landsman (301)-286-3625) writes:
> In article <E0402F.Ao8@midway.uchicago.edu>, meron@cars3.uchicago.edu writes...
>> In article <327771BA.2781@silk.gsfc.nasa.gov>, "Thomas A. McGlynn" >
> Now the median is a nonlinear filter so "flux conservation" isn't necessarily
> an important consideration. In any case, for smoothing it always makes
> sense to use an odd value of the Width parameter. But I had to write a
> program to median combine a stack of N images (combining CCD flatfield images
> while removing cosmic rays), and it took me a long time to figure out why
> my flatfield normalization was screwed up whenever N was even.
> The normalization problem was fixed when I stopped using the MEDIAN() function
> but instead SORT()'ed the values, and then averaged the two values on either
> side of the median dividing line. (In case anyone is interested, my median
> stacking program is available at
>
> http://idlastro.gsfc.nasa.gov/ftp/pro/image/medarr.pro)

Be careful with this too. If you have say 4 images and a
pixel where there is a cosmic ray in two of them the
median ends up being nowhere near any of the data values.
If you use the median as a first pass estimate before doing
cr rejection you can end up rejecting ALL the values!

I once had this problem with HST data...

Karl
--
kgb@aaoepp.aao.gov.au [Anglo-Australian Observatory]
----> pubs: http://www.ast.cam.ac.uk/~kgb/papers.html
----> pgperl: http://www.ast.cam.ac.uk/~kgb/pgperl.html