Subject: Re: azimuthal median
Posted by Wox on Wed, 16 Jan 2008 08:38:28 GMT
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On Tue, 15 Jan 2008 10:48:12 +0100, Wox <nomail@hotmail.com> wrote:

> On Mon, 14 Jan 2008 14:22:10 +0100, Bringfried Stecklum
> <stecklum@tls-tautenburg.de> wrote:
>
>> Hi folks,
>>
>> I am looking for a faster way to compute the azimuthal median in
>> dependence on radius than the brute-force method, i.e. getting the index
>> of pixels within a certain annulus, and using median(image[idx]). Is
>> this another case for the histogram wizards out there?
>>
>> regards,
>>
>> Bringfried
>
> I'm not familiar azimuthal median but what about image warping:
>
>
> ; Make azimuthal range
> a0=0.
> a1=2*!pi
> ai=0.1
> na=ceil((a1-a0)/ai)+1
> ai=(a1-a0)/(na-1)
> a=a0+ai*indgen(na)
>
> ; Make radial range
> r0=10.
> r1=20.
> ri=0.1
> nr=ceil((r1-r0)/ri)+1
> ri=(r1-r0)/(nr-1)
> r=r0+ri*indgen(nr)
>
> ; Radius and azimuth for warped image
> r=rebin(r,nr,na,/sample)
> a=rebin(transpose(a),nr,na,/sample)
>
> ; X and Y for warped image (xc,yc is center)
> xmap=xc+r*cos(a)
> ymap=yc+r*sin(a)
>
> ; Warped image

> oimage=Interpolate(image,xmap,ymap,/cubic)
>
> ; Median
> m=median(oimage,dim=1)

Should be m=median(oimage,dim=2) otherwise you get the median as a function of azimuth.
