Subject: Re: Making array out of sinc
Posted by Maxwell Peck on Fri, 27 Aug 2010 11:23:11 GMT
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On Aug 27, 9:00 pm, sirvival <fpfei...@hs.uni-hamburg.de> wrote:
> Hi,
> I want to create an array out of two sinc function.
> My code looks like this right now:
>
> ;sinc psf
> x=findgen(201)-100
> psfx3=DBLARR(N_ELEMENTS(X))
> for i=0, n_elements(x)-1 do begin
> if x(i) eq 0 then begin
> psfx3(i)=1
> endif else begin
> psfx3(i)=sin(x(i))/(x(i))
> endelse
> endfor
> y=findgen(81)-40
> psfy3=DBLARR(N_ELEMENTS(y))
>
> for i=0, n_elements(y)-1 do begin
> if y(i) eq 0 then begin
> psfy3(i)=1
> endif else begin
> psfy3(i)=sin(y(i))/(y(i))
> endelse
> endfor
> psf3=psfx3#psfy3
> psf3=psf3/total(psf3)
>
> plot,psfx3
> stop
> plot,psfy3
> stop
> shade_surf,psf3
> end
>
> The result is not what I am looking for.
> I want something that looks like when raindrop hits water.
> So when I do a contour plot it looks like elipsis.
> How can I do this?
>
> Thanks
>
> PS: I use IDL 7.1. Not sure when IT will upgrade to 8.0

Subject: Re: Making array out of sinc
Posted by Wout De Nolf on Fri, 27 Aug 2010 11:32:15 GMT
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On Fri, 27 Aug 2010 04:00:40 -0700 (PDT), sirvival
<fpfeifer@hs.uni-hamburg.de> wrote:

> I want something that looks like when raindrop hits water.
> So when I do a contour plot it looks like elipsis.
> How can I do this?

```
nx=201
ny=81
ratio=1.
x=rebin(findgen(nx)-nx/2,nx,ny,/sample)
y=rebin(findgen(1,ny)-ny/2,nx,ny,/sample)*ratio
r=sqrt(x*x+y*y)
psf3=sin(r)/r
```

This gives circles as contours. Change the "ratio" to make ellipses.
Btw, this is not a 2D sinc function. That would be sin(x)sin(y)/xy.

Subject: Re: Making array out of sinc
Posted by sirvival on Sat, 28 Aug 2010 11:42:43 GMT
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On 27 Aug., 13:32, Wox <s...@nomail.com> wrote:
> On Fri, 27 Aug 2010 04:00:40 -0700 (PDT), sirvival
>
> <fpfei...@hs.uni-hamburg.de> wrote:
>> I want something that looks like when raindrop hits water.
>> So when I do a contour plot it looks like elipsis.
>> How can I do this?
>
> nx=201
> ny=81
> ratio=1.
> x=rebin(findgen(nx)-nx/2,nx,ny,/sample)
> y=rebin(findgen(1,ny)-ny/2,nx,ny,/sample)*ratio
> r=sqrt(x*x+y*y)
> psf3=sin(r)/r
>

> This gives circles as contours. Change the "ratio" to make ellipses.
> Btw, this is not a 2D sinc function. That would be sin(x)sin(y)/xy.

Hi,
thanks alot.
Thats what I am looking for.

PS: Is my psf3=psfx3#psfy3 not equal to your sin(x)sin(y)/xy?

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