

Subject: Re: Radar Gridding Advice Sought
Posted by [pgrigis](#) on Wed, 09 Jul 2008 20:02:50 GMT
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Maybe something like this?
(see also http://www.dfanning.com/tips/grid_surface.html)

```
;create some test data in polar coordinates (radar view)
```

nr=512

nphi=512

$$r = \text{findgen}(nr) / (nr - 1)$$
$$\phi = \text{findgen}(n\phi) / (n\phi - 1)^2 \cdot \pi$$
$$r_r = (\phi_i^* 0 + 1) \# r$$
$$p\phi_i = \phi_i \# (r^* 0 + 1)$$

```
ray=exp(-(rr-0.5)^2*40-(pphi-1.5)^2*0.06)
```

tvsc1,ray

```
*****
))))))
```

```
;conversion polar ->cartesian
```

$$xx = rr^* \cos(pphi)$$
$$y = r \sin(\phi)$$

```
;interpolation via triangular mesh (as in http://www.dfanning.com/tips/grid\_surface.html)
```

Triangulate, xx, yy, triangles, boundaryPts

```
gridSpace = [0.01, 0.01]
```

```
griddedData = TriGrid(xx, yy, ray, triangles, gridSpace, XGrid=xvector,  
YGrid=yvector)
```

tvsc1,griddedData

Ciao,
Paolo

David Fanning wrote:

> Paul van Delst writes:

>

>> Not a suggestion, but a question: as you say,

>> each ray is its own little wedge since the

- >> radar has some finite beamwidth. As the radius

>> of each ray increases, how will you handle

>> "wedge overlap" of adjacent beams?

>

> My current plan is to ignore it. :-)

>
> I'm not trying to do science with this display, I'm
> just looking for fast, beautiful images. :-)
>
>> What about sidelobes? (Do radars have them? I
>> have no idea.)
>
> I have no idea, either. It hasn't been mentioned
> in conversations so far.
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
