Subject: Re: TRIGRID problem
Posted by davidf on Fri, 05 Jan 2001 20:30:11 GMT
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Cathy Smith (cas@cdc.noaa.gov) writes:

> I ran into a problem using TRIGRID to interpolate an array from 36x16 to 72x16
> on a sphere. I have the two lines
>
> triangulate,xlon1,xlat1,tr,FVALUE=slp1,sphere=s,/degrees
>
> z=trigrid(slp1,[0.,0.],[0.,15.,355.,90.],NX=72,NY=16,/degree s,sphere=s)
>
> This did not work and gave me the error
>
> % TRIGRID: Points are co-linear, no solution.
>
> However, using 354.99 instead of 355 gave me the correctly interpolated
> grid and no error.
>
> I think I followed the directions correctly (and in fact I tried setting
> GS to 5x5 and other similar
> permutations but got the same error).
>
> Does anyone know why?

I'm going to guess the infamous round-off error
related to the way computers store numbers. But
this is a useful trick to work around this frequent
problem. I've tried scaling the data before gridding,
etc. Lot's of things work. Sorta. :-)

Cheers,

David
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