Subject: Experience with TRIGRID? Posted by manizade on Fri, 08 Oct 1993 13:44:42 GMT View Forum Message <> Reply to Message

I have tried using the TRIGRID procedure on a Sun using both IDL 3.0 and 3.1 with disappointing results. The simple example in the IDL Basics book worked fine; when I used my own data the "interpolation" produced odd values in the output (e.g. spikes), particularly at the boundaries of the triangular regions. The problem is worse when the number of points in the interpolation grid is increased.

For example I called trigrid three ways and looked at the min and max of the output: triangulate,xvec,yvec,tr,boundary,repeats=reps t=trigrid(xvec,yvec,zvec,tr,/smooth) tt =trigrid(xvec,yvec,zvec,tr) ttt=trigrid(xvec,yvec,zvec,tr,grid_spc,grid_win); <--{ 250x250grid

raw data yvec min & max: 0.0560000 0.598000 smth grid t min & max: -0.112013 0.760076 lin grid tt min & max: -1.00000 0.652344 large grid ttt min & max: -2.82153 1.00781

Obviously a linear interpolation should not produce values outside of the input value range.

I have since written a program to sidestep trigrid by using triangulate and polyshade, which produces a 2-D image I can manipulate. But I would rather work with the interpolated 3-D data that trigrid is supposed to produce.

Can anyone please provide some insight into what TRIGRID is doing? Has anyone encountered bugs? Are there restrictions that are not documented in the IDL Help?

Thanks in advance for any ideas.

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Mr. Serdar S. Manizade <manizade@aol3.wff.nasa.gov> Airborne Oceanographic Lidar Project NASA/GSFC/Wallops Flight Facility, Wallops Island, VA