Subject: Re: spline interpolation
Posted by Ann_Mazuk on Thu, 12 Oct 1995 07:00:00 GMT
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In article <45j0dv$igq@cpca3.uea.ac.uk>, t.osborn@uea.ac.uk (T.Osborn) wrote:

> Hi,
>
> A colleague of mine hopes to do some "trivariate thin-plate splining" in
> IDL. Has anyone already written routines to do such interpolation?
>
> As I understand it, he has observations of some variable (T) at irregularly
> spaced locations (X,Y), but T also varies with elevation (Z). He needs to
> fit a spline surface through the T values, ultimately to obtain a regularly
> gridded set of values, but the spline surface must also take into account the
> dependence of T on Z.
>

I'm not sure if this will help you or not, but you might want to look at
the TRI_SURF routine. I have never actually used this routine before, but
just came upon it.

From the IDL Online Help:
The TRI_SURF function interpolates a regularly- or irregularly-gridded set
of points with a smooth quintic surface. The result is s a two-dimensional
floating-point array containing the interpolated surface, sampled at the
grid points. TRI_SURF is similar to MIN_CURVE_SURF but the surface fitted
is a smooth surface, not a minimum curvature surface. TRI_SURF has the
advantage of being much more efficient for larger numbers of points. This
routine is written in the IDL language. Its source code can be found in
the file tri_surf.pro in the lib subdirectory of the IDL distribution.
Calling Sequence
Result = TRI_SURF(Z [, X, Y])

> Thanks in advance for any help or routines.

Good luck!
> Tim

Ann

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Boring Disclaimer: These opinions are my own!

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