Subject: interpolating a mesh and computing its area
Posted by aetherlux on Wed, 16 Sep 2009 11:21:18 GMT
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Hi everybody,

I have a 4D subset of data: regular grid of horizontal points (x,y) on
a sphere, each one with several z and a value "a" associated for each
z. The z are fixed.

I want to interpolate the "a" values to predefined ones of my
interest. That is, after the interpolation I should have new (x,y) for
the fixed "a" and "z".

And after this I would like to compute the area enclosed by each one
of the new fixed "a" values.

I was thinking about the best way to do it with IDL. Could it be
possible a mix of interpolate/triangulate + mesh_surfacearea? Is it
possible to use IDLanROIGroup::ComputeMesh for such a thing?

I have a couple of ideas about how to do it, but I am looking for the
"smartest" one.
Any feedback is welcomed.
Thank you.

Subject: Re: interpolating a mesh and computing its area
Posted by Wout De Nolf on Wed, 16 Sep 2009 15:12:17 GMT
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On Wed, 16 Sep 2009 04:21:18 -0700 (PDT), aetherlux
<aetherlux@gmail.com> wrote:

> regular grid of horizontal points (x,y) on
> a sphere, each one with several z and a value "a" associated for each
> z. The z are fixed.

This is not just spherical gridding is it? You want interpolation of
the vectorfield F: (a,z) -> (x,y) ?

The only way I can think of is interpolate x(a,z) and y(a,z), although
I don't know whether this makes any physiscal sense in your case.