Subject: min_curve_surf
Posted by ratnakar amaravadi on Thu, 27 Oct 1994 13:56:43 GMT
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I would appreciate any help on the following problem :

I have a 3-D array which has an image of some object. The object is basically a surface like a coffee mug. The array is a 64x256x256 array. To make matters simple, the coffee mug does not have a handle. If I run down the 1st dimension of the array, then each of the 256x256 arrays looks like two concentric circles, describing the inner, and outer radius of the cup. As I go down on the first dimension, the radii (inner and outer) also are decreasing monotonically. That is to say, the cup sort of looks like a paraboloid.

I can use extract_slice and display longitudinal cuts at any angle w.r.t. the 1st dimension, and see the whole outer wall of the cup, from top to bottom. I would like to use these longitudinal cuts, and define points along the walls of the cup. So I actually get X,Y,Z arrays that define the cup's surface.

MY problem is : How can I use min_curve_surf to get an equation for the surface of the cup. Can any body tell me how min_curve_surface works. I am not able to understandwhat this routine does. What are thin-plate splines. Any pointers to TPS will also be appreciated.

Ratnakar Amaravadi Software Engineer
Indiana University School of Medicine Imaging Sciences div.
Ph. (317)274-1843 Fax:(317)274-4074

Subject: Re: min_curve_surf
Posted by David Fanning on Sat, 02 Dec 2006 19:26:01 GMT
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george writes:

> Is there any way I can "resize" the min_curve_surf to the physical
> interval defined by X and Y rather than to a regular grid of 26x26? So
> that I can still oplot,X,Y,psym=6 on the same plot?

```
smooth=min_curve_surf(Z,X,Y, XOUT=xx, YOUT=yy)
contour,smooth,xx,yy, XStyle=1, YStyle=1
```

Cheers,

David

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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.")
