Subject: Re: ARGHHHH Min_Curv_Surf !!!!!!!!!!
Posted by ben.bighair on Mon, 13 Oct 2008 01:23:02 GMT
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On Oct 12, 2:05 pm, plim.dream...@gmail.com wrote:
> Greetings,
> I am getting really frustrated here with this Min_curv_surf and would
> seriously appreciate some help before I punch the monitor!!!!
>
> My data is irregular, I have x,y,density arrays. I want to make
> smoothed contours for this data. The data goes from [-11,95] for x,
> [-37,155] for y.
>
> So I do
> R=min_curve_surf(density,x,y,nx=106,ny=192,bounds=[-11,-37,9 5,155])
> But it refuses to plot contours for the data having negative values.
>
> On top of the contours I am plotting the x,y, points so I can get a
> comparison between data and contours. And they don't match in the
> slightest.... It seems the scaling is off and the centering of the
> contour map is off with respect to the data points.
>
> I am not understanding the parameters "bounds" "gs" "nx, ny". I keep
> playing with different values trying to figure it out but zilch!!!!
> HELP!!!!!

Hi,

I wonder why you think it is MIN_CURVE_SURF that is the problem. You don't provide enough info to know for sure, but my first guess is that you are struggling with CONTOUR. Don't despair, you aren't alone.

My guess is that you need to explicitly tell CONTOUR where the interpolated values lies. Something like following... (heads-up, uses SCALE_VECTOR from David Fanning) contours into negative territory. Note I used GRIDDATA instead of MIN_CURVE_SURF.

Cheers,
Ben

```
NX = 100
NY = 100
B=[-11.0,-37.0,95.0,155.0]

X = SCALE_VECTOR(RANDOMU(seed, NX), B[0], B[2])
Y = SCALE_VECTOR(RANDOMU(seed, NY), B[1], B[3])
```

```
Z = (x^2 + y^2)  * (RANDOMU(seed, nx)/10)

GRID_INPUT, X, Y, Z, x1, y1, z1

r = GRIDDATA(x1, y1, z1, METHOD = "InverseDistance", $
  START = B[[0,1]], DIMENSION = [nx,ny])


xx = FINDGEN(nx)/(nx-1) * (b[2]-b[0]) + b[0]
yy = FINDGEN(ny)/(ny-1) * (b[3]-b[1]) + b[1]

CONTOUR, r, xx, yy, XRANGE = B[[0,2]], YRANGE = B[[1,3]]
```