Subject: ARGHHHH Min_Curv_Surf !!!!!!!!!!!!
Posted by plim.dreaming on Sun, 12 Oct 2008 18:05:02 GMT
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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!!!!!

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:
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> 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]]
```