
Subject: contour plot of scattered data

Posted by [kgcharib02](#) on Fri, 11 Mar 2016 00:14:54 GMT

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Hello,

with help Fanning's library, I wrote the following code to visualize a contour lines for scattered rain value as function of latitude and longitude.

```
-----  
pro rain  
lat=[ 30.0057, 32.0008, 32.0078, 24.0022, 29.0075, 29.0003, 32.0010, 32.0082, 25.0080]  
lon=[20.0017, 10.0027, 22.0058, 23.0030, 24.0053, 21.0057, 23.0092, 21.0085, 21.0013]  
data_ra=[30.2000, 33.4000, 28.2000, 34.3000, 25.3000, 27.1000, 35.2000, 33.9000, 38.1000]
```

```
lat2d = Rebin(lat, 45)  
lon2d = Rebin(lon,45)  
data_r=Rebin(data_ra,45)  
print, data_r
```

```
Triangulate, lon2d, lat2d, triangles  
gridData = Trigrd(lon2d, lat2d, data_r, $  
triangles, NX=45, NY=45, $  
XGrid=xgrid, YGrid=ygrid)  
nlevels = 12  
step = (Max(gridData) - Min(gridData)) / nlevels  
levels = IndGen(nlevels) * step + Min(gridData)  
LoadCT, 33, NColors=nlevels, Bottom=1
```

```
SetDecomposedState, 0, CurrentState=currentState  
Contour, gridData, xgrid, ygrid, /Cell_Fill, $  
Levels=levels, Background=cgColor('white'), $  
Position=[0.125, 0.125, 0.95, 0.80], $  
Color=cgColor('black'), XStyle=1, YStyle=1, $  
C_Colors=IndGen(nlevels)+1  
Contour, gridData, xgrid, ygrid, /Overplot, $  
Color=cgColor('black'), Levels=levels, $  
C_Labels=everyOther
```

```
SetDecomposedState, currentState
```

```
cgColorbar, Range=[Min(gridData),Max(gridData)], $  
Divisions=12, XTicklen=1, XMinor=0, $  
AnnotateColor='black', NColors=12, Bottom=1, $  
Position=[0.125, 0.915, 0.955, 0.95], $  
Charsize=0.75  
end
```

```
-----  
the outcome contour lines are very bad. I need a help to improve my code
```

Cheers

Khaled

Subject: Re: contour plot of scattered data

Posted by [Craig Markwardt](#) on Fri, 11 Mar 2016 17:11:07 GMT

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On Thursday, March 10, 2016 at 7:14:57 PM UTC-5, kgha...@gmail.com wrote:

> Hello,

> with help Fanning's library, I wrote the following code to visualize a contour lines for scattered rain value as function of latitude and longitude.

> -----

...

> -----

> the outcome contour lines are very bad. I need a help to improve my code

More likely, you need to improve your data. With such a sparse data set, the contours will be poor.
