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Subject: non-integer binsize

Posted by [patrick.gatlin](#) on Thu, 05 May 2005 00:28:04 GMT

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This may be a very elementary question, but I was wondering if the histogram function can accept a binsize < 1?

I am using the hist\_2d function to determine the density field of some lat/lon locations in a dataset. These values range 4 deg lat and 4 deg lon. In order to determine the # of points per square km, I have setup the hist\_2d function as follows:

```
IDL> result=hist_2d(lon,lat,max1=lonmax,min1=lonmin,max2=latmax,$  
    min2=latmin,bin1=1/111.,bin2=1/111.)
```

where the size of bin1 and bin2 are the approximate conversions from km to degrees (1km=.09 deg).

Since hist\_2d needs two bins, then is the result equal the number of points within a box that is 1/111. long on all sides? Thus am assuming result will give me the # of points per square kilometer. Is this a correct assumption based upon the way hist\_2d works?

Thanks!

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