Subject: Re: Problem with REFORM and HISTOGRAM
Posted by rogass on Fri, 08 Oct 2010 22:33:34 GMT
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On 8 Okt., 07:03, Mrunmayee <gaur...@gmail.com> wrote:
> My post did not get posted about 12 hours ago. I live in India and was
> hoping the post would be up for gurus in western timezones to possibly
> offer help. Now I will wait for yet another 24 hours! I always check
> the box to "Send copy to self" which I DID get. And I also notice a
> lot of spam has gone. I don't think my post contained anything
> 'hotter' than rebin/reform/histogram. So, dear moderator, may I ask
> how I offended this group? Anyway. Onto the problem:
>
> 1. I have 2 arrays of coordinates, x1arr of N1 size, x2arr of N2 size
> and same for y1arr, y2arr, z1arr, z2arr. These are coordinates along 2
> different lines and I need all the distances between points on one
> line and points on another. I do it by:
> x1arrReb = Rebin(x1arr, N1, N2)
> x2arrReb = Rebin(Transpose(x2arr), N1, N2)
> dx = x1arrReb - x2arrReb
> Similarly obtain dy, dz. Then,
> d = Sqrt(dx*dx + dy*dy + dz*dz)
>
> 2. I need to bin these distances for further computation.
> dhist = Histogram(d, nbins=8, locations=bins, reverse_indices=ri)
>
> 3. Now I want to check, in each bin, which distance corresponds to
> which x1 and which x2 coordinate. From
> above, I can do following:
>
> x1arrRef = Reform(x1arrReb, N1*N2) & x2arrRef = Reform(x2arrReb,
> N1*N2)
>
> Then use the Reverse_Indices and get coordinates. Right?
>
> 4. Alternatively, I was trying this:
> for i = 0,nbins-1
> indices = ri[ri[i]: ri[i+1]-1]
> rowID = indices/N1 ; This is to get i,j values from the 1D indices.
> colID = indices - rowID * N1
> x1coord = x1arr[rowID] ; This is the original 1-d N1-element
> x1arr.
> x2coord = x2arr[colID] ; ------- ditto ------ x2arr.
> endfor
>
> Problem is, if this way, I get all the coordinates and re-calculate
> distances to see if I get the distances in the bin 'i' back, I don't!
> And I don't know where my understanding is wrong here. So can someone

> please point out? Am I book-keeping indices wrong?

Why don't you use the distance_measure function? You can also just rebin the dist function into third dimension times its transpose and then ask for the values according to its indices ?

Cheers

Cr
