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Subject: Re: Finding pairs of points within a certain distance  
Posted by [Jeremy Bailin](#) on Tue, 09 Apr 2013 03:18:39 GMT  
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On 4/8/13 5:56 PM, koensayr@gmail.com wrote:

> Hello all,  
>  
> I have a problem that I'm trying to find an efficient way to solve.  
>  
> I have a large list of points (on the order of  $10^8$ ), that I need to match to a second list of points  
> (on the order of  $10^5$  points), and find all pairs that are within a certain distance from each other.  
>  
> The points are located on the surface of the Earth, so they are given in lat/lon coordinates. I  
have looked at functions like `map_2points` that can calculate the distance, but brute force way of  
matching them would be way too slow.  
>  
> I noticed a user written library in the Documents of Exelis called `match_sph` that seem to do  
what I need, but I cannot find where to download it, and the website where that library was hosted  
seems to be down.  
>  
> I have also thought about maybe dividing the points into small chunks using something like  
`hist_nd`, but was hoping that there might be an existing program for something like this already.  
>  
> Any help is greatly appreciated,  
>  
> Thanks!  
>

Yes, you need `match_sph`. No, I still haven't gotten off my ass and put  
it back up. I'll email it to you...

-Jeremy.

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