
Subject: Re: Nearest neighbor search in position vector array and curl of vector field
Posted by [Craig Markwardt](#) on Fri, 23 May 2014 00:04:57 GMT

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On Wednesday, May 21, 2014 3:46:38 AM UTC-4, p.j.s...@lboro.ac.uk wrote:

> The position vectors are obviously not on a uniform grid and neither are the velocity vectors. Essentially what I wanted to do was find the curl of the vector field, so it might be that there an easier way of trying to calculate this?

Can you resample onto a uniform grid. That would obviously make things *much* easier, and amenable to vectorizing in IDL.

Even if you can't resample your data, you might consider using a 2 step search. First use a regular grid to narrow down the part of your sample that is near to your particle point. Then use standard cartesian to search the remaining samples. Even if you do this, I don't think you will be able to vectorize.

Craig
