
Subject: IDL natural neighbor interpolation for 3D irregular grid onto 3D scattered points

Posted by [asdf](#) on Wed, 06 Oct 2010 15:58:13 GMT

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I have a 3D irregular spaced grid with scalar data defined at each point (x, y, z , and $f(x, y, z)$). I want to interpolate to find the value at very specific points. I was hoping to avoid interpolating the irregular grid onto a regular grid, then interpolating at the values with something like `interpolate`. I have read "Natural Neighbor Interpolation" is a convenient algorithm to do what I want, but I can't find anything in IDL to implement it with 3D irregular grid data onto 3D scattered data. `GRIDDATA` seems to only interpolate onto a regular grid (and I'm not sure if it would handle the irregular input grid, as it is not on a sphere). It seems like IDL has all of the right pieces (`qhull` for the Delaunay triangulation and Voronoi diagram), just wondering if someone has already put all of those pieces together.
