Subject: Re: interpolate weirdness
Posted by Helder Marchetto on Fri, 21 Feb 2014 12:33:45 GMT
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On Friday, February 21, 2014 1:00:36 PM UTC+1, CR wrote:
> Hi Folks,
>
>
>
> I know that there is no 'correct' way for interpolation, but maybe a 'best' IDL way. The following example easily demonstrates what I mean:
>
>
>
> IDL> d=dist(20) & print,interpolate(d,[.5],[.5],/grid)
>
> 0.853553
>
>
>
> IDL> print,interpolate(d,[.5],[.5],/grid,/cubic)
>
> 0.622236
>
>
>
> IDL> print,interpolate(d,[.400544],[.400544],/grid)
>
> 0.707107
>
>
>
> IDL> print,interpolate(d,[.581946],[.581946],/grid,/cubic)
>
> 0.707107
>
>
>
> IDL> print,'The result should be: ',sqrt(.5)
>
> The result should be: 0.707107
>
>
>
>
>
> It does not play a role which IDL version is used - for IDL 6.4 and for IDL 8.3 I got the same results. Is there any way to get 'closer' to a reasonable result?

>
>
>
> Thanks and Cheers
>
>
>
> Chris

I'm not sure what you're trying to do here, but interpolating near borders is kind of complicated because you can only have one side to rely on. However, if you're going to use bicubic interpolation, I would recommend using:
print,interpolate(d,[.5],[.5],/grid,cubic=-0.5)
then you get:
0.738791
Hope it helps,
h
