
Subject: Re: interpolation

Posted by [Kenneth P. Bowman](#) on Wed, 07 Dec 2011 22:25:39 GMT

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In article <12296280.447.1323289672656.JavaMail.geo-discussion-forums@yq q16 >, Brian Wolven <brian.wolven@gmail.com> wrote:

> It does seem unlikely that one could *interpolate* and get values that were
> outside the bounds of the original data. ;)

With linear interpolation that is certainly true, but it can occur with higher order schemes. Interpolation usually guarantees only that the interpolating function passes through the known data points.

If you take the spline interpolation example in my book

http://csrp.tamu.edu/pdf/idl/sample_chapter.pdf

and compute the result at high resolution, you will see that the spline function overshoots the tabulated points.

Cheers, Ken Bowman
