
Subject: Re: Yet another user with poly_fit problems
Posted by [suicidaleggroll](#) on Wed, 02 Oct 2013 19:31:58 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Wednesday, October 2, 2013 11:35:35 AM UTC-6, Ken G wrote:

> I feel compelled to jump in here and say that the interpolation method is mathematically dicey and I wouldn't do it. What you're essentially doing is weighting your data points in a very non-linear way. We see that the first few points are clustered closely together in x; the last few points are widely separated. The uniform x spacing in the linear interpolation therefore devotes *many* more points to the large-x-value region relative to the number of y points out there to support the data. So in your fit result, you're biasing or weighting the data as if the large y were the most significant point by far. You can see this in the results if you plot newX, D . There's a downward bulge in D between the last two points as the weighting pulls the curve down toward the linear interpolation. Plus, D fails to come close to the first 2 points.

That is true. I mentioned in my post that this approach was suitable for the application in which I used it (my points were more or less evenly spaced), but you're right that it might not be ideal for Gus. The same kind of approach could probably still be used though with different abscissa values to prevent the heavy weighting at higher X values.
