Subject: Re: poly_fit for less number of points
Posted by Craig Markwardt on Mon, 06 May 2013 20:26:51 GMT
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On Sunday, May 5, 2013 6:03:25 PM UTC-4, David Fanning wrote:
> Craig Markwardt writes:
>
>> This fit,
>> res = poly_fit(x-mean(x), y, 2)
>> gives a smooth fit.
>
>
>
> What is the principle here that made you think of this solution and
> caused it to work?

Well, not much. He asked for a smooth function and I gave it to him. Jeremy is right, there is a round-off problem that makes the original POLY_FIT(X,Y,2) not work. Subtracting the mean of X (and/or Y) is a classic solution to the problem of round-off.

As HeinzS intimates, there's really a lot more to the question, like, how smooth should the function be? what degree of polynomial is permissible? how close of an approximation should the function be? what is the tolerance for outliers? why are there no error bars on the data? what is the definition of a "good fit?"

Without any of that information, I felt it worth to just provide *an* answer, even if it wasn't *the* answer to the original implicit question.

Craig