
Subject: Re: polynomial fitting(second degree)
Posted by [pgrigis](#) on Mon, 10 May 2010 19:53:25 GMT
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One of the possible problem here is that your x-values are large and close to each other. Therefore, it's not a good idea to have a model that computes the square of a close set of large numbers, as you could end up losing precision.

So doing the fitting in the variable $x=(c-3933)$ instead is a much better alternative. Does that work properly?

Ciao,
Paolo

On May 10, 2:36 pm, sid <gunvicsi...@gmail.com> wrote:

> Hi,
> I am having wavelength in x axis from say $c=(3933.2002, \dots, 3933.4724)$ and intensity in y axis from say d
> $= (0.085022407, \dots, 0.081581624, \dots, 0.085993795)$.
> Now I did `res=poly_fit(c,d,2)`
> then, $x=(-res(1)/(2*res(2))$ which should give the site of minimum
> value, but instead im getting some very weird answer as 4410.8199. I
> calculated $y = res(0) + res(1)*x + res(2)*x^2$ which should give the
> minimum value but it is also obviously weird.
> But the same procedure if I proceed with `c=dindgen(78)`(that is the
> number of wavelength values initially in c).
> Then if I do `res=poly_fit(c,d,2)`
> then i did $x=(-res(1)/(2*res(2))$ and $y = res(0) + res(1)*x +$
> $res(2)*x^2$, in this way im getting resonable x and y value.
>
> Why it happens and please help me to get the correct solution, even if
> i do the same with the wavelength values.
> regards
> sid
