
Subject: Re: Doubt in polynomial fitting - emergency

Posted by [sid](#) on Tue, 02 Nov 2010 10:38:03 GMT

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On Nov 2, 2:22 pm, Bringfried Stecklum <steck...@tls-tautenburg.de> wrote:

> sid wrote:

>> Hi,

>> I am fitting my spectral data with 2 degree polynomial with the
>> routine svdfit. I need to find the minimum value after fitting the data
>> points.

>> For example my code is like this,

>> ;c is x axis with wavelength(it is an absorption line)

>> ;d is y axis with normalised intensity

>> ypoly=svdfit(c,d,3,yfit=y1,chisq=chi,sigma=sig)

>> x=min(y1)

>> x1=-(ypoly(1))/(2*ypoly(2))

>> if suppose u,v is the position of x, x1 respectively then

>> c(u) should be equal to c(v)

>> and

>> d(u) should be equal to d(v)

>> but im getting

>> c(u)=3933.3090 in angstroms

>> c(v)=3933.3072 in angstroms

>> d(u)=0.071168385

>> d(v)=0.072779992

>> Please suggest me why it is not the same, which value should I believe

>> and how?

>> thanking you

>> sid

>

> Well, I'd say x represents the minimum for the fitted data while x1 is the

> minimum for the fitted polynomial. Since the spectrum is sampled at discrete

> points c, you cannot expect that the abscissa value for the minimum of the

> polynomial coincides with a sampling point.

>

> Regards, Bringfried

Which value will be the best and how to find that, by looking into the plot I feel x is good.

thanking you

sid
