Subject: Re: how to use mpfit fitting routine
Posted by bstecklu on Wed, 15 May 2013 08:36:56 GMT
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idlhelp wrote:
> Dear All, I have an observed spectrum in which I have wavelength (Wo) and
> flux (Fo). I want to compare that with the 200 different synthetic spectrum
> in order to obtain the best free parameter. I want to use MPFIT routine for
> that. I have gone through their webpage but It seems very complicated to me
> to use. Does anyone know how to use to fit the spectrum.
>
> Any help will be appriciated
>
> thanks

Perhaps this will solve your problem or provide guidance to write something from scratch.

The Hammer: An IDL Spectral Typing Suite

http://www.astro.washington.edu/users/slh/hammer/

Regards, Bringfried

Subject: Re: how to use mpfit fitting routine
Posted by Phillip Bitzer on Wed, 15 May 2013 14:13:47 GMT
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For MPFIT, you need data and a model. Sounds like you have data (observed), but what is the model? One of the 200 spectra? A linear combination? What is the "free parameter"?

I think a little more information is needed here....

Subject: Re: how to use mpfit fitting routine
Posted by Craig Markwardt on Wed, 15 May 2013 14:16:35 GMT
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On Wednesday, May 15, 2013 4:12:00 AM UTC-4, idlhelp wrote:
> Dear All,
>
> I have an observed spectrum in which I have wavelength (Wo) and flux (Fo). I want to compare that with the 200 different synthetic spectrum in order to obtain the best free parameter. I want to use MPFIT routine for that. I have gone through their webpage but It seems very complicated to me to use. Does anyone know how to use to fit the spectrum.

If you have 200 synthetic spectra, why do you need MPFIT? You could just compare your observed spectrum to each and every synthetic spectrum and find the best match.

I suspect what you *really* want to do, but don't say, is be able to interpolate between the synthetic spectra to find an intermediate match. That is possible, but you need to develop or find some software to do this, completely unrelated to MPFIT. Interpolation may be specific to your kind of spectrum.

MPFIT expects your (interpolated) model function needs to be a smoothly varying function of your parameters.

Best wishes,
Craig
