Subject: Re: MPFIT2DFUN- use for a time series of images?
Posted by Katie[1] on Fri, 11 Mar 2011 14:47:19 GMT
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On Mar 11, 7:49 am, Allard de Wit <ajwde...@xs4all.nl> wrote:
> On Mar 10, 9:01 pm, Katie <kmwhite21...@gmail.com> wrote:
>
>> I want to fit pixel values to a logistic model that each have X, Y
>> coordinates and a day of the year value associated with them. I see
>> from the MPFIT2DFUN documentation how to define X, Y for a each Z
>> dependent value and the dependent error value, but can a third
>> variable (day of the year in this case) be defined in order to fit a
>> curve in MPFIT2DFUN? I currently have each each date as a separate
>> band in a stacked image file that I exported as an ASCII file. I want
>> to determine the day of the year that the pixel values (vegetation
>> indices) reach a value on the the curve.
>
>> Any suggestions, or perhaps I am not understanding the MPFIT2DFUN
>> correctly (I am very new to IDL)?
>
> Katie,
>
> You will need to iterate over the rows and columns of your image and
> fit
> the logistic model to the time-series at each row/column value.
> Indeed, MPFITFUN is one of the tools to do that.
>
> A couple of years ago I implemented this approach for use with the
> GIMMS
> dataset. In fact it uses a double logistic model to model the NDVI
> time-series. My implementation does not include a variable day-of-year
> (just regular time-steps) but this is a trivial extension. It also
> uses IDLs native Curve_Fit routine rather then MPFITFUN, although the
> latter is better.
>
> If you're interested I can send you a copy of that code.
>
> Allard

Thanks Gray and Allard, that makes more sense, I will look at
MPFITFUN-- and yes Allard it would be extremely helpful to be able to
look at the copy of your code!

Katie