Subject: Re: Minimization: Determine a constant across data sets Posted by on Fri, 06 Apr 2012 09:43:33 GMT

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Den fredagen den 6:e april 2012 kl. 04:42:40 UTC+2 skrev Justin:

- > Hi all!
- >

>

- > I have several data sets that follow the form:
- > data = $A^* e^{-t/t0}$ + y
- > data = 71 0 (010)1
- > I suspect EVERY data set to have the same t0, but different A & y values. (ie: (A1,y1),(A2,y2)...)
- > I can use MPFITFUN to fit A,t0 and y, but the routine determines a least chi-squared such that t0 is different for every data set.
- > It would seem simple enough to fix t0 in MPFITFUN if I knew what the value was beforehand, but I don't:) Is there a way to minimize t0 across several data sets such that A & y are allowed to vary, but t0 is tied to every data set?

Sounds like you could describe your problem something like this:

```
data = [data1, data2, data3, ...]

model = [A1*e^{-t,t0}+y1, A2*e^{-t,t0}+y2, A3*e^{-t,t0}, ...]
```

If you code the model MYFUNCT with the parameter array interpreted as p[0,1,2,3,...]=[t0,A1,y1,A2,y2,...] you should be able to keep using mpfitfun.

/Mats