Subject: Minimization: Determine a constant across data sets Posted by Justin Cantrell on Fri, 06 Apr 2012 02:42:40 GMT

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Hi all!

I have several data sets that follow the form:

$$data = A^* e^{-(-t/t0)} + y$$

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?

I tried doing this in grids, but it was very computationally time consuming to search an unknown gridspace of t0 in an double for loop.

Thanks! Justin