Subject: Problems getting CURVEFIT to work
Posted by Jonathan Greenberg on Tue, 12 Nov 2002 23:24:35 GMT
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Hi there, I'm trying to use CURVEFIT to fit data to a decay function of the
form:
f(x) = a(1-e^(bx))+c
My code is as follows:

```
pro decayfunc, X,A,F,pder
bx=EXP(A[1]*X)
F=A[0]*(1-bx)+A[2]
if N_PARAMS() GE 4 THEN $
pder=[[1-bx],[-A[0]*X*bx],[replicate(1.0,N_ELEMENTS(X))]]
end

X=[30185.0,33897.0,35089.0,35377.0,35665.0]
Y=[0.3002,1.3849,1.3004,1.226,1.3118]
A=[1.25,-1.0,-0.1]
weight=[1.0,1.0,1.0,1.0,1.0]
 yfit=CURVEFIT[X,Y,weights,A,SIGMA,FUNCTION_NAME='decayfunc', /DOUBLE]
```

I get the error:
CURVEFIT: Failed to converge- CHISQ increasing without bound.
and the SIGMA values are:
.44721360,Infinity,.44721360

The plot of the data looks like it should fit a decay equation, but CURVEFIT
can't seem to determine the parameters. I've tried a number of different
starting values for A to no avail. Any suggestions?

--j

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Jonathan Greenberg
Graduate Group in Ecology, U.C. Davis
http://www.cstars.ucdavis.edu/~jongreen
http://www.cstars.ucdavis.edu
AIM: jgrn307 or jgrn3007
MSN: jgrn307@msn.com or jgrn3007@msn.com