
Subject: Re: curve fitting: works badly?

Posted by [thompson](#) on Mon, 06 Mar 1995 23:49:09 GMT

[View Forum Message](#) <> [Reply to Message](#)

feil@prl.philips.nl (Hans Feil) writes:

> I try to use CURVEFIT to get some simple data fitted to an harmonic
> oscillator.

> Somehow things don't work very good.

(stuff deleted)

> pro FUNCT,x,a,f,pder

> f = a(0) + a(1)*(x-a(2))^2

> PDER = FLTARR(N_ELEMENTS(X),3) ;YES, MAKE ARRAY.

>

> PDER(*,0) = 1.0 ;COMPUTE PARTIALS

> PDER(*,1) = (x-a(2))^2

> PDER(*,2) = 2*a(1)*(x-a(2))
 ^^^^^^^^^^^^^^^^

> end

> RETURN

> end

I think that your problem is here. I believe that the sign of this partial derivative should be negative.

I've often had this problem with this technique. If the partial derivatives are calculated wrong, you can compute till doomsday and it'll never converge. I often just don't bother to try to figure it out anymore, and just do the derivatives numerically.

Bill Thompson
