
Subject: Re: curve-fitting with additional constraints

Posted by [pln](#) on Tue, 08 Feb 1994 21:42:52 GMT

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Jennifer Dungan (jennifer@gaia.arc.nasa.gov) wrote:

: I have a curve-fitting question.

: I am using second degree polynomials of the form

: $y = a_2 x^2 + a_1 x + a_0$

: to fit some data. This is a reasonable model and most of the data

: can be fit quite well. However, the model also needs to include

: the constraint that the maximum response is at $x=0$. I don't have

: any data at exactly $x=0$. Does anyone know how I can incorporate

: this additional constraint into my fitting program? I am currently

: using IDL's POLY_FIT.

This constraint is equivalent to requiring $a_1=0$ in your model.

You could change to a simpler model

$y = a_2 x^2 + a_0$.

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