
Subject: Re: 2D-fit

Posted by [Paul Van Delst\[1\]](#) on Tue, 02 Mar 2004 15:53:47 GMT

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Esa Riihonen wrote:

>
> Hi all!
>
> I seek advice on fitting a following function with 2-free variables mu and
> phi (Below '.' indicates multiplication and '^2' power of 2):
>
> $F(\mu, \phi) = a_0 + a_1 \mu + a_2 \mu^2 + (a_3 \mu + a_4 \mu^2) \cos(\phi - \phi_0)$,
>
> ϕ_0 is a constant and a_i are the fitting parameters.
>
> Measurement set consists of 240 values (10 values for mu and 24 for phi,
> this in effect a polar coordinate grid with 24 'sectors' and 10 'rings').
>
> So the question what is the best way of doing this in IDL?

THE best way would be to download Craig Markwardt's MPFIT library and use that. Not only is it more robust than equivalent IDL procedures, there's a *lot* more functionality that will allow you to fit stuff oh so much faster.

Seriously, go to

<http://cow.physics.wisc.edu/~craigm/idl/idl.html>

and grab his MPFIT library.

paulv

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