
Subject: Re: Fitting an implicit function with IDL

Posted by [Gianluca Li Causi](#) on Wed, 09 Jun 2010 11:17:36 GMT

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>

> What I am not quite sure is how you include the data uncertainties in
> the model.

Dear Craig and Heinz,

in fact this is my problem: in the usual form $F(x, A, B, C) = Y$ the data uncertainties are on the right side, i.e. $Y(x) \pm \text{Err}_Y(x)$, even if $Y=0$, while in my case the data $W(x)$ and $Z(x)$ are within a functional form which does not allow to isolate them on the right side.

In general if I have an equation $F(x, \text{Data}(x) \pm \text{Err_Data}(x), \text{Params}) = 0$ and I try to write it as $F \pm \text{Err}_F = 0$, computing Err_F as the error propagation of Err_Data through F , I get a parameter-dependent uncertainty $\text{Err}_F = \text{Err}_F(\text{Params})$!

This is why I cannot use CURVEFIT or the like (even MPFIT if I understand). Can I?

Gianluca
