
Subject: Fitting with three parameters ???

Posted by [atmospheric physics](#) on Mon, 16 Jun 2014 10:49:18 GMT

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

Hello,

I have two columns of data, say variables X and Y. Now I want to fit the data with a function $Y = x_1 - x_2 * \exp(-x_3 * X)$. I do not know what the values of x_1 , x_2 and x_3 .

Can anyone say if there is automatic way in IDL to define our fitting function and then obtain the fitted parameters to the data? How is non-linear fitting done in IDL? Also, I would like to know which function will be able to give me R2 correlation coefficient?

Thanks in advance,
Madhavan

Subject: Re: Fitting with three parameters ???

Posted by [Moritz Fischer](#) on Mon, 16 Jun 2014 10:55:47 GMT

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

Hi,

You should take a look at Craig's MPFIT routines:

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

cheers

Am 16.06.2014 12:49, schrieb Madhavan Bomidi:

> Hello,

>

> I have two columns of data, say variables X and Y. Now I want to fit
> the data with a function $Y = x_1 - x_2 * \exp(-x_3 * X)$. I do not know
> what the values of x_1 , x_2 and x_3 .

>

> Can anyone say if there is automatic way in IDL to define our fitting
> function and then obtain the fitted parameters to the data? How is
> non-linear fitting done in IDL? Also, I would like to know which
> function will be able to give me R2 correlation coefficient?

>

> Thanks in advance, Madhavan

>

Subject: Re: Fitting with three parameters ???

Posted by [Russell Ryan](#) on Mon, 16 Jun 2014 19:22:37 GMT

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

There are dozens of ways to do this, the MPFIT library is just one (albeit a very good one). IDL

has several functions for minimization and there are dozens more available else where.

<http://www.exelisvis.com/docs/routines-47.html>

Russell

On Monday, June 16, 2014 6:49:18 AM UTC-4, Madhavan Bomidi wrote:

> Hello,
>
>
>
> I have two columns of data, say variables X and Y. Now I want to fit the data with a function $Y = x_1 - x_2 * \exp(-x_3 * X)$. I do not know what the values of x_1 , x_2 and x_3 .
>
>
>
> Can anyone say if there is automatic way in IDL to define our fitting function and then obtain the fitted parameters to the data? How is non-linear fitting done in IDL? Also, I would like to know which function will be able to give me R2 correlation coefficient?
>
>
>
> Thanks in advance,
>
> Madhavan
