Subject: HELP NEEDED! to fit a linear equation containing 2 independant variables
Posted by antoine.dlc on Thu, 08 Jun 2006 17:17:06 GMT

Dear fellow IDL programmers,

I'm trying to fit the parameters of a linear equation of type:

z = a*x + b*y + c

where a, b,c are constant parameters and x,y are two independant
variables.

In the past, I used the procedures LMFIT, LINFIT, CURVEFIT to fit
equations but these only accept 1 independant variable.

Can someone tell me if a procedure exists to fit the parameters of a
linear equation made of 2 independant variables???

If not, is it possible to give LMFIT, LINFIT, CURVEFIT...etc. 2
independant variables instead of only 1?

Thanks a lot !!!
Tony

Subject: Re: HELP NEEDED! to fit a linear equation containing 2 independant variables
Posted by Brian Larsen on Thu, 08 Jun 2006 20:10:43 GMT

Tony,

this is exactly what the regress function in idl does. Have a look at
its help page.

Cheers,

Brian

antoine.dlc@gmail.com wrote:
> Dear fellow IDL programmers,
>
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>
> z = a*x + b*y + c
>

> where a, b,c are constant parameters and x,y are two independant
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> independant variables instead of only 1?
>
>
> Thanks a lot !!!
> Tony

Subject: Re: HELP NEEDED! to fit a linear equation containing 2 independant variables

Posted by Craig Markwardt on Sun, 11 Jun 2006 07:14:35 GMT

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antoine.dlc@gmail.com writes:
> Dear fellow IDL programmers,
>
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>
> $z = a*x + b*y + c$
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> where a, b,c are constant parameters and x,y are two independant
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> linear equation made of 2 independant variables???
>
> If not, is it possible to give LMFIT, LINFIT, CURVEFIT...etc. 2
> independant variables instead of only 1?

Actually LMFIT and CURVEFIT *can* accept multiple variables. If you
read the documentation,

```
;     X:  A row vector of independent variables.  This routine does
;         not manipulate or use values in X, it simply passes X
;         to the user-written function.
```

you can define any "X" vector that you wish as long as it is a single
IDL variable. It could be a structure containing X and Y, or a
concatenated vector of [X, Y] values. Either way, it is up to your
model function to retreive the proper X and Y values from the combined
variable.

Happy fitting,
Craig

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Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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