Subject: Re: Help: multiple linear regression fit
Posted by Craig Markwardt on Tue, 12 Aug 2003 15:55:39 GMT
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fishdick91@hotmail.com (fishdick91@hotmail.com) writes:

> Hi everyone,
>
> I've set up a model: y = a1*x1 + a2*x2 + a3*x3 to fit my experiment
> data,
> and am using 'regress' function to perform this fit.
> However, the 'regress' function always return a big const which I
> don't need.
> So question 1:
>   how can I fix the const when fitting?

And what of the MPFIT family of functions? Using the driver
MPFITEXPR, you can set up an expression that almost exactly matches
your case:

  EXPR = 'P(0)*X(*,0) + P(1)*X(*,1) + P(2)*X(*,2)'

(of course you need the core routine MPFIT too). You would need to
set up X as an Nx3 array, and Y as an N-vector.

Some people seem to resist using a non-linear regression tool for a
linear problem on the basis of, "it's *ONLY* linear regression!"
Originally I might explain that the heart of any non-linear regression
package is a linear solver, so it's really all the same. Recently I
just shrug and say, "their loss."

Happy fitting,
Craig

http://cow.physics.wisc.edu/~craigm/idl/idl.html   (under fitting)

Subject: Re: Help: multiple linear regression fit
Posted by fishdick91 on Wed, 13 Aug 2003 02:54:48 GMT
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Craig Markwardt <craigmnet@cow.physics.wisc.edu> wrote in message
news:<onoeyurhtw.fsf@cow.physics.wisc.edu>...
> And what of the MPFIT family of functions? Using the driver
> MPFITEXPR, you can set up an expression that almost exactly matches
> Some people seem to resist using a non-linear regression tool for a
Yes, we once thought so, although my colleagues and I have used your
tools to fit all kinds of spectra lines. :)

Now it seems the time for us to change our mind, and use MPFITEXPR to
do 'linear regression' also.
Thank you, for your procedures and your advice.
Good luck,

Dick
> linear problem on the basis of, "it's *ONLY* linear regression!"
> Originally I might explain that the heart of any non-linear regression
> package is a linear solver, so it's really all the same. Recently I
> just shrug and say, "their loss."
>
> Happy fitting,
> Craig
>
> http://cow.physics.wisc.edu/~craigm/idl/idl.html   (under fitting)