Subject: Help: multiple linear regression fit
Posted by fishdick91 on Tue, 12 Aug 2003 13:22:24 GMT
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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?

question 2:
I've tried SVD method (a modified version of SVDFIT which IDL provided). In principle, the SVD method should give the golobal chi-squre minimum solution.
But in fact, it's not! (I've checked using Matlab.)
Why?

After failing in using those two IDL functions, REGRESS, SVDFIT, I have to resort to Matlab to do the constrained multiple linear regression, since the constrained_min procedure in IDL is not good. I find lsqlin() in Matlab.
// LSQLIN: to do the constrained Least SQaures LINear fitting.
So comes my question 3:
  Does IDL has the procedure similiar to lsqlin()?

Thanks in advance!

fishmaker: Dick

P.S. an old post I searched:

From: joe@degsyd.syd.deg.csiro.au (joe@degsyd.syd.deg.csiro.au)
Subject: need constrained SVD code in IDL :)
This is the only article in this thread
View: Original Format
Newsgroups: comp.lang.idl-pvwave
Date: 1991-10-25 08:14:28 PST

Has anyone in the IDL/PV~Wave world written, and would like to share, an SVD-based least-squares fitting procedure that allows the user to constrain the solutions with linear inequality and equality constraints?

I am aware of the IDL SVD routines, but I want to restrict the solution
space in the following manner:
 1) all returned values must be .GE. zero
 2) the sum of the returned values must be .LE. 1.

I tried "translating" Lawson and Hansen NNLS code into IDL but I got slow and unreliable results. (probably because of all the DO loops and my "interpretation" of what their code actually does.:)

Any help on this would be greatly appreciated.
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