Subject: Re: Non-Negative Least Squares
Posted by William H Dorin IV on Wed, 17 Jun 1998 07:00:00 GMT
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<HTML>
Peter Scarth wrote:
<BLOCKQUOTE TYPE=CITE>Hi,

I'm using IDL 5.03 and ENVI to model the canopy size and tree density
from

Landsat image data. At the moment I'm about to start writing an algorithm

to find the best fit of x in Ax=b subject to x being non negative.
Whilst I

haven't been able to find IDL code to give me this, maybe someone out
there

has been down this path before???

Any pointers would be greatly appreciated.

Peter Scarth</BLOCKQUOTE>
 I'm not sure I understand, exactly. You have data in the form

<P>b(0), x(0)

b(1), x(1)

...

<P>and you wand to fit a function of the form Ax=b for non-negative values
of x(n)?

<P>If this is the case, try this:

<P>xsum=0.0

bsum=0.0

for i=(0,n_max) do begin

    if (x(n) ge 0.0) then do begin

          xsum=xsum+x(n)

          bsum=bsum+b(n)

    endif

endfor

a=bsum/xsum

<P>I'm sure there's a much faster way using where statements, but I'm still
rather new at IDL, and I don't know the structure of your data arrays

<P>Hope it helps - if I'm totally off on what you want, write me back and
I'll see if I can do what you REALLY want,

<P>Wm.
<PRE>--
    ****
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 </HTML>