
Subject: Re: LEAST SQUARE MATRIX

Posted by [James Kuyper](#) on Wed, 09 Mar 2005 16:53:32 GMT

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Matthias Demuzere wrote:

> Hi,
>
> Could anyone help me with the construction of a least square matrix in IDL
> indicated by A
>
> where $i,j=1, 2,...,N$
>
> Tips, idees, everything is welcome...

Well, the least square matrix in IDL would probably be:

```
bytarr(1,9223372036854775807)
```

However, I suppose that most systems won't have enough memory to create it. :-)

You need to make your question more specific. You've left out a lot of details, starting with what 'i', 'j', and 'N' mean. However, that's just the beginning. "least squares" is a criterion that is often used to fit a model to some data. However, to answer your question we need to know at least a little bit about what kind of model and what kind of data you're looking at.

Subject: Re: LEAST SQUARE MATRIX

Posted by [Matthias Demuzere](#) on Wed, 09 Mar 2005 17:13:27 GMT

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Sorry,

I had a formula typed in mathtype in here, but I think its gone...

Here is my question again:

I have a dataset of temperatures taken at hourly steps (k-value) for a whole month (i-value). Now, i would like to compare each temperature $T_{k,i}$ with every other $T_{k,j}$ with j the same number of days as in i. i would like to do that comparison by least square methods like this

$$\text{Matrix } A_{i,j} = \sum (T_{k,i} - T_{k,j})^2$$

where the matrix $A_{i,j}$ is a symmetrical matrix (because i,j are the same day).

How can that be done in IDL?

Tips, ideas, everything is welcome...

Thanks,
Matthias

"Matthias Demuzere" <Matthias.demuzere@geo.kuleuven.ac.be> wrote in message
news:1110385467.646608@seven.kulnet.kuleuven.ac.be...

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> Thank you!!
>
> Matthias
> --
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Subject: least square matrix
Posted by [Matthias Demuzere](#) on Fri, 11 Mar 2005 09:33:37 GMT
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Hi,

Because my question maybe still a bit unclear, here it is again:

I have a dataset of temperatures taken at hourly steps (k-value, ranging from 1-24) for a whole month (with i days). Now, I would like to compare each temperature $T_{k,i}$ with every other $T_{k,j}$ with j the same number of days as in i. I would like to do

that comparison by least square methods like this

Matrix $A_{i,j} = \sum (T_{k,i} - T_{k,j})^2$

where the matrix $A_{i,j}$ is a symmetrical matrix (because i,j are the same day).

How can that be done in IDL?

I was thinking of some FOR statements, like this:

```
FOR i=1, i LE 31, i++ DO BEGIN
  FOR j=1, j LE 31, j++ DO BEGIN
    FOR k=1, k LE 24, k++ DO BEGIN
      function
    ENDFOR
  ENDFOR
ENDFOR
```

But this doesn't seem to work really...Any ideas, tips,...??

Thanks,
Matthias

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