
Subject: Re: multiple non-linear regression analysis
Posted by [Kenlo Nishida](#) on Fri, 20 Apr 2001 06:38:36 GMT
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Thank you Bill Thompson for advice about multiple nonlinear regression.
I tried to use LMFIT by setting independent variable in structure as
you told, but the IDL refused to process LMFIT function with structure.
Error message is "% FLOAT: Struct expression not allowed in this context:
X."

The following is my test program:

----- start of test.pro -----

```
function fn, s, a
a=float(a)
f=a[0]*s.x1+a[1]*s.x2
return, [f, s.x1, s.x2]
end
```

pro test

```
s={x1: 0.0, x2: 0.0}
x1=findgen(10)
x2=x1*x1
s=replicate(s, 10)
s.x1=x1
s.x2=x2
y=1.2*x1+2.3*x2
a=[0.1, 0.1]
fit=lmfit(s,y,a,function_name='fn')
end
```

----- end of test.pro -----

Then the performance and error message is like this:

```
IDL> .compile test
% Compiled module: FN.
% Procedure was compiled while active: TEST. Returning.
% Compiled module: TEST.
IDL> test
% FLOAT: Struct expression not allowed in this context: X.
% Error occurred at:  LMFIT          245
/usr/local/rsi/envi_3.1/idl_5.1/lib/lmfit.pro
%          TEST          17 test.pro
%          $MAIN$
% Execution halted at:  TEST          17 test.pro
IDL>
```

Kenlo Nishida
kenlo@ntsg.umd.edu
