

---

Subject: multiple non-linear regression analysis  
Posted by [Kenlo Nishida](#) on Tue, 17 Apr 2001 18:28:57 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dear IDL news group:

How can I make multiple non-linear regression analysis with IDL?  
I know "LMFIT" command can make a non-linear regression analysis for a single independent variable. However, I want to know an appropriate command or function of IDL which provide me with a fitting of an arbitrary non-linear function with two or more independent variables. I mean, I want to determine the following three parameters (a, b, c):

$$y=f(x_1, x_2, x_3; a, b, c)$$

Here  $x_1$ ,  $x_2$ , and  $x_3$  are arrays of independent variables each containing  $n$  data.  $y$  is an array of dependent variable with  $n$  data.  $a$ ,  $b$ , and  $c$  are scalars (parameters) which determine the non-linear function  $f(x_1, x_2, x_3)$ .

Kenlo Nishida

Numerical Terradynamic Simulation Group (NTSG)/EOS training Center  
School of Forestry, The University of Montana, Missoula, MT 59812, USA  
Office (406) 243-4693; Fax (406) 243-4510  
[kenlo@ntsg.umt.edu](mailto:kenlo@ntsg.umt.edu)

---

---

Subject: Re: multiple non-linear regression analysis  
Posted by [Kenlo Nishida](#) on Fri, 20 Apr 2001 07:26:57 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

I tried CURVEFIT instead of LMFIT, then it worked.

Thank you both Bill and Craig.

Kenlo Nishida

---