

---

Subject: Re: cubic spline fitting

Posted by [iansmith@bigpond.net](mailto:iansmith@bigpond.net) on Wed, 19 Nov 2014 04:22:13 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Thank you for your help. I can report that your suggested approach works even where the Y variable in the SPL\_INIT procedure is an array of discrete values and not a function of X

On Friday, November 14, 2014 1:51:01 PM UTC+11, wlandsman wrote:

> The documentation gives an example of how to call spl\_init and spl\_interp

>

> X = (FINDGEN(21)/20.0) \* 2.0 \* !PI

> Y = SIN(X)

> ; Calculate interpolating cubic spline:

> Y2 = SPL\_INIT(X, Y)

> ; Define the X values P at which we desire interpolated Y values:

> X2= FINDGEN(11)/11.0 \* !PI

> ; Calculate the interpolated Y values corresponding to X2[i]:

> result = SPL\_INTERP(X, Y, Y2, X2)

> PRINT, result

>

> Note that

> (1) there is no comma prior to the parentheses

> (2) one must set the output equal to a variable e.g. Y = SPL\_INTERP(X,Y,Y2,X2)

>

> The confusion may be due to the fact that IDL has both procedure calls and function calls, with quite different syntax.

>

>

> On Thursday, November 13, 2014 9:18:36 PM UTC-5, ian....@mq.edu.au wrote:

>> I am trying to use the IDL routines

>>

>> spl\_init and spl\_interp

>>

>> to do a cubic spline fit to variables that are vectors with 45 elements.

>> ie y is not a function of x.

>>

>> I am getting 2 compilation errors where it seems to be objecting to using a vector for y instead of y being a function of x.

>>

>> IDL> .compile -v 'C:\Ian\_Plots\complines 27102014 FYZ Clumps SiO 2-1 and 5-4 Peak Tbs dV30.pro'

>> % Compiled module: LOAD\_MOLDATA.

>>

>> spl\_init,(x\_nH\_5,y\_Tb13N\_5,double)

```
>>      ^
>> % Syntax error.
>> At: C:\lan_Plots\complines 27102014 FYZ Clumps SiO 2-1 and 5-4 Peak Tbs dV30.pro,
Line 476
>>
>> spl_interp,(x_nH_5,y_Tb13N_5,x2_nH_5,y2_13N_5,double)
>>      ^
>> % Syntax error.
>> At: C:\lan_Plots\complines 27102014 FYZ Clumps SiO 2-1 and 5-4 Peak Tbs dV30.pro,
Line 481
>> % 2 Compilation error(s) in module $MAIN$.
>>
```

---