
Subject: Re: I need a bit of help....Convol and functions
Posted by [James Kuyper](#) on Wed, 04 Oct 2006 13:43:33 GMT
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D.Kochman@gmail.com wrote:

>> Yes, func() needs to create an array for CONVOL() to convolve. However,
>> sumex should already be an array, in order for this code to work as
>> intended, and this code does nothing to change any aspect of sumex. I'm
>> not sure I understand what you mean by the comment "but its a
>> function".

>

>

> Thanks for the help, slowly but surely I'm starting to get it. What I
> meant by "but its a function" is I just don't see how sumex is an
> array. If I were to put

>

> sumex = X

>

> that to me makes sumex a function, namely, $f(x)=x$

No, in IDL, the statement sumex=x would make the variable named sumex
refer to an object which is an exact copy of x. If X is an array, then
sumex will be an array of the same type and shape. In the actual code
you gave us,

```
sumex=P(0)*exp( -X / P(1) )+P(2)*exp( -X / P(3) )+P(7)*exp( -X / P(8) )
```

dividing X by P(1) creates a new array with the same shape as X.
Passing that array to exp() produces a result with the same shape as X,
and multiplying it by P(0) also produces an array in the same shape.
The same applies to each of the terms in that sum, and adding all three
terms together also produces an array of the same shape.