Subject: Re: continuum normalized spectra
Posted by on Sun, 03 Feb 2013 14:22:54 GMT
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Den söndagen den 3:e februari 2013 kl. 09:09:20 UTC+1 skrev idlhelp:
> On Saturday, February 2, 2013 7:42:39 PM UTC+1, David Fanning wrote:
>
>> idlhelp writes:
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>
>>> I want to write a program to fit a linear local continuum of absorption line, and plot the spectrum with continuum drawn and the spectrum normalized by the continuum. And than I want to Fit a local continuum using data in the wavelength ranges 1800-1820 and 2020-2040 angstroms.
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>>>
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>
>>> Does anyone know that how can I do that
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>
>> Yes, probably. But, not without a hell of a lot more information. :-)
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>> Cheers,
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>> David
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>
>> David Fanning, Ph.D.
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>
>> Fanning Software Consulting, Inc.
>
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>
>> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
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>
>> Sepore ma de ni thue. ("Perhaps thou speakest truth.")
>
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>
> Hi David,
>
> ok so here is the information. This is how I am doing :-)
>
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>

```
> ;    filename - the filename of the input spectrum
>
> ;    column - the number of columns in the file
>
> ;    row - the number of rows in the file
>
> ;    boxsize - the size of the boxcar for the smoothing function
>
> ;    dofit - the user keyword
>
> ;    dofityes - the variable containing the input parameter
>
>
>
>
>
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>
>
> data = fltarr(column, row)
>
>
>
> ; open the file as read only
>
> openr,lun,filename,/get_lun
>
>
>
> ; read the data from the file into the array
>
> readf,lun,data
>
>
>
> ; close the file
>
> close,/all
>
>
>
>
>
> wave=reform(data(0,*))
>
> flux=reform(data(1,*))
>
>
>
```

```
>
>
>  ; This creates a new array containing the results generate
>
>  ; by the smooth function.
>
>  smoothed_flux = smooth(flux,boxsize)
>
>
>
>
>
>  ; check to see if the user would like to fit the continuum
>
>  if keyword_set(dofityes) then begin  ; this check the dofit keyword
>
>
>
>    ; fit velocity and smoothed_flux, using a 1st order polynomial.
>
>    result = poly_fit(wave,smoothed_flux,1)
>
>
>
>    ; generate the continuum with the results from the fit
>
>    continuum = result(0) + result(1)*wave
>
>
>
>
>
>  end
>
>
>
>
>
>  But I am not sure that I am doing the continuum normalization to unity in a right way. Because
when I make plots the contunum level is higher than the unity.
```

As far as I can see, you don't do any normalization at all. You calculate the fit, but you never operate on the original (or smoothed) spectrum with that fit. I guess you need to divide the spectrum with the fit.
