Subject: Re: continuum normalized spectra
Posted by David Fanning on Sat, 02 Feb 2013 18:42:39 GMT
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idlhelp writes:

> 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.
>
> Does anyone know that how can I do that

Yes, probably. But, not without a hell of a lot more information. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: continuum normalized spectra
Posted by abc on Sun, 03 Feb 2013 08:09:20 GMT
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On Saturday, February 2, 2013 7:42:39 PM UTC+1, David Fanning wrote:
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Hi David,
ok so here is the information. This is how I am doing :-)

```
;    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



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.

Subject: Re: continuum normalized spectra
Posted by David Fanning on Sun, 03 Feb 2013 14:20:31 GMT
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idlhelp writes:

> But I am not sure that I am doing the continuum normalization to unity in a right way.

Well, unless this has a specific meaning in your field (astronomy?), I would take "normalization to unity" to mean divide the result by its maximum value.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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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:
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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.