
Subject: Re: interpolation of two different model
Posted by [abc](#) on Mon, 07 Jan 2013 22:50:38 GMT
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On Monday, January 7, 2013 10:49:38 PM UTC+1, wlandsman wrote:

> First, I assume that you giving fake data, and that your fluxes are really more precise than only 1 significant digit.

>

>

>

> The data sets have the same temperature and gravity, so you only need to interpolate in metallicity. But first you should interpolate the two spectra onto a common wavelength scale. Here's is how I would linearly interpolate in wavelength and metallicity using procedures from the IDL Astronomy library. <http://idlastro.gsfc.nasa.gov/homepage.html>

>

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>

> IDL> readcol,'2900-4.0-0.5.txt',w1,f1 ;read into wavelength & flux vectors

>

> IDL> readcol,'2900-4.0-0.0.txt',w2,f2

>

> IDL> linterp,w1,f1,w2,f1_w2 ;Use w2 as a common wavelength scale

>

> IDL> frac = (0.5+m)/0.5 ;Fractional distance between 0.0 and -0.5

>

> IDL> finterp = f1_w2*frac + f2*(1-frac) ;interpolated function

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>

> where m is the metallicity between 0 and -0.5

>

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>

> --Wayne

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> On Monday, January 7, 2013 3:49:32 PM UTC-5, idlhelp wrote:

>

>> I have the following 2 data file (2900-4.0-0.5.txt, 2900-4.0-0.0.txt) for example which contain wavelength and flux. The number of data in the both the files are not same.

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>> (Where 2900 is Temperature, 4.0 is gravity and -0.5 and -0.0 is the metallicity)

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>>
>
>> 2900-4.0-0.5 2900-4.0-0.0

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>> wave flux wave flux

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>
>> 1 0.3 1.0 0.5

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>> 2 0.4 1.4 0.1

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>> 3 0.1 3.1 0.4

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>> 4 0.5 4.0 0.3

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>> 5 0.4 5.1 0.2

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>> 6 0.6

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>> I need to interpolate these two data file i.e between -0.5 and -0.0 at a step of 0.1. I don't know how i can interpolate these two different files in IDL. Any help will be appreciated.

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>> thanks in advance

Thanks Wayne,

Yes, the data is fake as the files are so big that I can't upload them. Your method work fine. But just a small confusion. What if I have grid of model then how can I proceed for example

2900-4.0-0.5.txt
2900-4.0-0.0.txt
3000-4.0-0.0.txt
3000-4.0-0.0.txt
3100-4.0-0.0.txt
3100-4.0-0.0.txt

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