Subject: Re: Convolve a spectrum (from MODTRAN) with a spectral response function
Posted by MC on Sat, 02 Jan 2010 13:04:11 GMT
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On Dec 30 2009, 4:55 pm, Mat <m...@waikato.ac.nz> wrote:
> On Dec 30, 4:41 pm, Mat <m...@waikato.ac.nz> wrote:
>
> Sorry I will try again!
>
> Hi all
>
> I would like to convolve a spectrum (output from MODTRAN) with a
> spectral response curve (Landsat7 B62) and then integrate the
> convoluted result. As you can see from the example below the spectral
> resolution does not match.
>
> Eg. Spectrum:
>
> Wavenumber Radiance
> 800.0 7.52E-004
> 801.0 7.66E-004
> 802.0 7.58E-004
> 803.0 7.25E-004
> 804.0 7.23E-004
> 805.0 7.62E-004
>
> Eg. Response
>
> Wavenuber Relative Spectral response
> 800.00000 0.2
> 800.64051 0.29
> 801.28205 0.27
> 801.92462 0.28
> 802.56822 0.36
> 803.21285 0.36
> 803.85852 0.39
> 804.50523 0.41
> 805.15298 0.42
> 805.80177 0.43
> 806.45161 0.45
>
> Any help would be much appreciated.

Hmm, from your description I'm not sure you want a convolution, more like a point by point multiplication. Congrid will allow you to do this.

Cheers