Subject: Re: wavenum, frequency FFT plot
Posted by R.G. Stockwell on Thu, 23 Apr 2009 22:03:45 GMT
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<kishore1818@gmail.com> wrote in message
 news:c004f032-02b9-4990-a268-73966d3c6383@a5g2000pre.googleg roups.com...
> Hi,
> I have time vs latitudinal values and I would like to estimate the
> power spectral density 2-D do the 2-D FFT to get the frequency VS wave
> number .
> Example : data sets are (30,8); 30=days values and 8 latitudinal avg.
> data
> I am planning to wave number, frequency and power contour plot.
> x-axis zonal wave number range is -7 to 7
> Y-axis frequency range is -1. To 1.
> Does anybody have a good example program on 2D FFT in IDL program.
>
> Thanking you,
>
> Kishore

You mean longitudinal values (for zonal wavenumber)?
And is it global (45 deg sampling)?

just call FFT on the data, keep in mind that it is symmetrical
across the origin, and that you're index numbers are the wavenumbers
in the k_lon direction.

The sampling in time is i/(NT), where T is the sampling interval in time.

cheers,
bob