Subject: Re: wavenum, frequency FFT plot
Posted by kishore1818 on Mon, 27 Apr 2009 21:28:12 GMT
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On Apr 23, 3:03 pm, "R.G. Stockwell" <noemai...@please.com> wrote:
> <kishore1...@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

Hi Bob,
Thanks for your e-mail message.
Actually I have 365 days daily avg values, every 10 deg latitudinal
averages.
ie., (365,18). I need to calculate the psd for 30days data sets for
all latitudinal values.
But I am planning to plot contour: wvae no. (x axis), frequency (y-
axis) and z is power.
could you give a example program then it is very easy to understand to
me and also I am beginner in IDL.

Thanking you,

Kishore