Subject: Re: Inverse FFT
Posted by R.G. Stockwell on Tue, 17 Dec 2002 14:42:27 GMT
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Colin Ault wrote:

> Hi,
>
> Thanks for the comments and suggestions.
>
> I am packing the negative frequencies correctly (I hope!) - just using
> the same method in the online FFT example. I call this array k_points,
> and this ranges thus 0, 0.01, 0.02.....,0.50, -0.49, ..., -0.02,
> -0.01. This is for 100 points sampled at T=1.0 seconds.
>
> I then compute the FFT via the normal method, FFT(function), and
> obtain my expected spectral pattern. So far, so good!
>
> I then use the following code to compute (manually) the inverse:
>
> FOR j=0, n-1 DO BEGIN
>
> spec_sig = FT*exp(2*pi*k_points * t[j]/n)
>
> new_signal[j] = TOTAL(spec_sig)
>
> ENDFOR
>
> FT is an array holding the fourier transform of my function

Perhaps it was a typo, but don't you want

spec_sig = FT*exp(complex(0,1)*2*!pi*k_points * t[j]/n)

(And make sure FT is complex)

Cheers,
bob stockwell