Subject: Re: What are the errors in the FFT?
Posted by Haje Korth on Thu, 08 Feb 2007 18:37:45 GMT
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Monty,
Congratulations, you have just discovered you machine's precisions in doing
floating point mathematics. :-)

BTW: I have uploaded an FFTW3 implementation to the ITTVIS codebank. Should
be ready for grabs there in a few days. You can double check just for grins.

Cheers,
Haje

<monty@lanl.gov> wrote in message
news:1170953635.505681.59040@v33g2000cwv.googlegroups.com...
> For a given function f(t) I am finding:
>
> FFT(FFT(f(t),-1),1) -f(t) varies between about 10^-7 to 1-^-8 for
> floating point
> and about 10^-14 to 10^-16 for double precision
>
> (I.e. the inverse transform of the transform deviates from the
> original function)
>
> Is this aproblem with the IDL implementation of the FFT, or is this a
> more fundamental issue with the algorithm itself?
>
> -Monty Wood
>