Subject: Re: FFT OF A NON RECTANGULAR IMAGE
Posted by pgrigis on Thu, 30 Oct 2008 15:10:22 GMT
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On Oct 28, 9:35 pm, "R.G. Stockwell" <notha...@noemail.com> wrote:
> <pgri...@gmail.com> wrote in message
>
> news:a67d1bc7-604e-4d94-83c3-e2ff5d662a1c@p10g2000prf.google groups.com...
>
>
>
>> R.G. Stockwell wrote:
>>> <pgri...@gmail.com> wrote in message
>>> news:3cb784b7-dfed-4c87-a2ab-d775d1edec0e@f40g2000pri.google groups.com...
>>>> Maybe you could do a (slow) FT instead of FFT?
>
>>>> Ciao,
>
>>>> Paolo
>
>>> Not directly. DFT and FFT are the same, the difference is in how the
>>> calculation is done.
>
>> What I meant was, for every frequency vector (kx,ky),
>> evaluate the Furier transform F(kx,ky) by computing
>> the integral of the input function (or table of values)
>> multiplied by the Fourier basis function of kx,ky over
>> the elliptical domain....
>> On second thought, this would be extremly slow...
>
>> Ciao,
>> Paolo
>
> I stake my life (no wait, your life) on the fact that the final result would
> be
> identical, allowing for differences due to lost precision (FFT would be
> superior in that respect).
>
> Cheers,
> bob
>
> PS try it out, you can write a DFT in about 3 lines.

You mean, by setting the value of the function
outside the support [i.e. ellipse or whatever]
to 0? Yes, I can see that in this case the Fourier
integral will be the same as if it were evaluated
only on the support (because integrating 0 over

any area will always give 0). So yes, I agree with you, let's disregard my previous post.

Paolo

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