Subject: Optimal interpolation
Posted by Luis on Wed, 21 Aug 2002 13:47:08 GMT
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Hi,

does somebody know abouts an optimal interpolation subrroutine. I am trying
to compare some different interpolation techniques and this is the only one
than I don't have programmed.

thank you!

Luis Prieto Godino

U.C.M. Spain

Subject: Re: Optimal interpolation
Posted by Paul Van Delst[1] on Wed, 28 Aug 2002 18:19:33 GMT
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GB Karas wrote:
>
> sinc interpolation relies on the following interpolating kernel:
>
> sinc(x)=sin(x)/x

Why don't you use FFT's to do the interpolation then? You know, FFT the curve in question, zerofill
(or truncate) the result and FFT back?

paulv

>
> Paul van Delst <paul.vandelst@noaa.gov> wrote in message
news:<3D653F9D.223EDD66@noaa.gov>...
>> GB Karas wrote:
>>>
>>> oh well.. i think that really depends on your data
>>>
>>> i analyze MRI data, so I have to use sinc and windowed sinc
>>> interpolation
>>
>> OT, but...
>>
>> What is sinc (and windowed sinc) interpolation?

>>
>> paulv

--
Paul van Delst
CIMSS @ NOAA/NCEP/EMC
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Fax:(301)763-8545

Subject: Re: Optimal interpolation
Posted by Robert Stockwell on Wed, 28 Aug 2002 20:47:22 GMT
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Paul van Delst wrote:
> GB Karas wrote:
>
>> sinc interpolation relies on the following interpolating kernel:
>>
>> sinc(x)=sin(x)/x
>
>
> Why don't you use FFT's to do the interpolation then? You know, FFT the curve in question, zerofill
> (or truncate) the result and FFT back?

If you check out a digital signal processing book on upsampling
or downsampling (or perhaps multirate sampling) you'll see that it
can be the way to go in some cases.
(oppenheimer and schafer frinstance)

Cheers,
bob
