
Subject: Re: Discrete sine transform

Posted by [Kenneth P. Bowman](#) on Thu, 02 May 2002 11:16:46 GMT

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In article <aar135\$hq\$1@n.ruf.uni-freiburg.de>,
"Dominik Paul" <dpaul@ukl.uni-freiburg.de> wrote:

> I am not 100% sure about it, but I think the sin transform is just the
> imaginary part of the Fourie Transformation.
>

>> Does anybody have the algorithm for the discrete sine tranform coded
>> in IDL. If I understand correctly it can be done (with some
>> redundancy) by using the FFT - but I'm not sure how!

Dominik Paul is correct, but the discrete sine transform is usually defined from (0, π) rather than (0, 2 π). So if your series is of length N, I think that you need to double the length of the series by adding N zeros. The coefficients will also need to be adjusted by a factor of 2 (because your are integrating over a domain that is twice as large).

Hope that helps,

Ken Bowman
