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\$hqq\$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
- >> redundency) by using the FFT but I'm not sure how!

Dominik Paul is correct, but the discrete sine transform is usually defined from (0, pi) rather than (0, 2 pi). 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