
Subject: Re: Convolution, IDL & Numerical Recipes
Posted by [Kenneth P. Bowman](#) on Fri, 01 Nov 2002 03:41:13 GMT
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In article <3DC1D46E.18695AC0@saicmodis.com>,
James Kuyper <kuyper@saicmodis.com> wrote:

As James points out, convolution in the physical domain is equivalent to multiplication in the spectral domain (and vice versa). Therefore, one way to convolve (or filter) is to FFT the signal, multiply the spectrum by the transform of the filter, and inverse FFT. This can be considerably faster than convolving in the physical domain under some circumstances.

The trick, of course, is sorting out the wavenumbers and getting the filter right in the spectral domain. ;-)

Ken Bowman
