Subject: Re: Convolution with non-constant Kernel? Posted by rogass on Fri, 12 Nov 2010 22:03:25 GMT

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On 12 Nov., 01:56, SonicKenking <ywa...@gmail.com> wrote:

- > Hi, I wonder if there is an easy way to perform convolution on an
- > array with non-constant kernel.

>

- > The IDL built-in CONVOL function requires the kernel to be a fixed
- > array, e.g.
- > [-1,2,-1]. I want to have a dynamic kernel that changes based on the
- > position of the array. Something like

>

 $> array = [8,6,7,9,1,3,4,5], kernel=[sin(index_i-1), 2, sin(index_i+1)]$

>

- > Is there any other built-in IDL function that can do this or is there
- > someone who has already coded this up? If the answer is no, I'll go
- > ahead and code my own program. Just checking it here beforehand to
- > avoid re-inventing wheels.

>

> Thanks!

If you are interested. I have a routine which strictly performs discrete convolutions for a 2d array and a 3d kernel without zero padding, without loops and for small kernels faster than fft. Just send me an email.

Cheers

CR