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Subject: Re: Anisotropic smoothing operations

Posted by [Jaco van Gorkom](#) on Thu, 26 Apr 2001 10:25:32 GMT

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Ben Tupper wrote:

- > How can I smooth a 2d image with a rectangular (rather than square)
- > smoothing window?

Your post presents the answer rather completely already, with demo code and all. Like you, I use CONVOL for this. I have been wanting to write up a general routine, allowing for fractional smoothing window widths, circular/elliptical smoothing windows, etc., but I never really got round to it. I must have all the elements spread somewhere through my codes by now, though. I might post it in future.

> ...

- > Is there a way to make CONVOL treat missing data as SMOOTH does?

What I do is set all NaN values in the input array to zero, do the smoothing with CONVOL, and divide the result by a similarly smoothed version of the original FINITE(InputArray). Where this division is one by zero, the output element should be NaN, which you might want to set it to by hand to avoid the arithmetic error thing. If you want to bother.

Cheers,  
Jaco

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