
Subject: Re: 2D Savitzky-Golay derivative filter?

Posted by [David Fanning](#) on Sun, 03 Feb 2013 19:08:36 GMT

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David Grier writes:

- > I would like to use Savitzky-Golay filters to calculate gradients of images.
- > Before I roll my own code to calculate the filter coefficients, I was wondering
- > if anyone here already had working routines that they would be willing to share.
- >
- > IDL's built-in SAVGOL routine only computes one-dimensional filters, and I need
- > two-dimensional filters. Erik Rosolowsky's SAVGOL2D computes two-dimensional
- > smoothing filters, but not two-dimensional derivative filters.
- >
- > Alternatively, is there an equivalently good IDL way to compute image gradients?
- > A useful replacement would offer the noise rejection of Savitzky-Golay without
- > suppressing peaks the way that SMOOTH() does.

The Sobel and Roberts functions are both 2D gradient or derivative filters, or you can just roll your own and do some kind of Laplacian filter:

http://www.idlcoyote.com/ip_tips/sharpen.html

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")
