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Subject: Speckle reducing filters

Posted by [knipp](#) on Wed, 08 Sep 1993 08:27:03 GMT

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Hi,

I'm currently involved in studying the effects of several speckle-removing-filters applied to 8-bit- vs. 16-bit-data (SAR Images, ERS-1).

Has anybody implementations of the following filters in IDL/Wave?

1) Lee's Sigma Filter - Lee, "Speckle suppression and anaysis ...",  
Optical Engineering, May 1986

{ 2) Lee's Local Statistics - " }

3) Kuan's generalization of Lee's  
Local Statistics - Kuan, et.al. "Adaptive noise smoothing ..",  
IEEE Trans. Pattern Anaysis, 1985

I know that due to their adaptive nature implementations of these filters in IDL/Wave are computational inefficient, however I want to be able to easy include additional features to the code. Furthermore it's easier to apply the same filter to 8 AND 16-bit data in IDL/Wave than in p.e. C.

to 2): I'm fully aware of the LEEFILT-routine in the user-library, but to be honest,  
I do not understand this implementation and so doubt it's correctness.

Thank you all,  
Karl

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
//\_\\// Karlheinz Knipp      Tel. 0511 - 762 4922  
//\_/\_// Uni Hannover      Fax. 0511 - 762 2483  
//\_\_\_\_\_/// Institut f. Photogrammetrie  
//\_/\_// Nienburger Str.1      email knipp@ipi.uni-hannover.de  
/\_/\_/\_/\_/ FRG 30167 Hannover 1

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