

Foucher, S. "Multiscale Filtering of SAR Images Using Scale and Space Consistency" In *Proceedings of the IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2007)*. Barcelona, Spain, July 23-27, 2007.

**Abstract**

A new approach for speckle reduction in SAR images based on the stationary wavelet transform is proposed. Noisy wavelet coefficients are reduced via a shrinkage function that depends on a statistical modeling of the normalized wavelet coefficient probability density functions. Consistencies between coefficients across scales and space are also reinforced using consistency rules. The approach is particularly robust in cases of correlated speckle noise.

**Keywords** : speckle filtering; SAR; wavelet.