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Habilitation thesis.
Research results and future work

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- Watermarking
- Denoising
- Wavelet transforms
- Complex models (CGGD)
- Texture clustering
- Image contrast enhancement
- Hurst parameter estimation - Image smoothness
- Radar signal processing
- Others



Contributions

- (A) Watermark embedding: wavelet domain (DWT or HWT) in all resolution levels
- (B) More robust and higher payload when watermark is inserted in all resolution levels
- (C) More robust and higher payload when watermark is inserted in all resolution subbands
- (D) Multiple detectors, and fuse their result
- (E) More perceptual watermark obtained if we use local estimation of standard deviation to the host image
- (F) Increase robustness and capacity in the HWT domain
- (G) Increase robustness using turbo-coding of the watermark



