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8. Analysis

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From MRA to Tight Frames
Errors in the coefficients of a signal in a wavelet orthonormal system representation do not cancel out one each other, but all of them increase quadratically the total error. Conversely, this does not happen in a not exact frame representation. That is why it is interesting to go from an orthonormal bases to another stable system increasing the redundancy and avoiding noise in that way. In this work non trivial redundancy has been introduced and a characterization that guarantees the structure of a tight frame is given. This tightness makes the reconstruction of the signal to be direct.
Key words: wavelets, frames, MRA, noise.