A Generalization Of Zerotree Coding Algorithms

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Abstract : Despite the release of the JPEG−2000 standard, wavelet−based zerotree coders keep being object of intense research because of their conceptual simplicity and excellent performance. In this work we show that any zerotree coder can be described by specifying the involved data structures (typically, order−k zerotrees) and a very limited set of tree decomposition rules. This simple grammar allows one to easily design and implement new zerotree coders, with performance sometimes superior to existing algorithms.