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Pseudo-codewords of LDPC codes.

LDPC codes are distinguished by their fast decoding algorithm. A drawback of this algorithm is that, instead of a codeword, sometimes it yields a pseudocodeword, that is, a codeword in a finite cover of the original code. In this talk we shall discuss various ways to characterize pseudo-codewords of an LDPC code. This is based on the joint work of Koetter, Li, Vontobel, and Walker. (Received August 29, 2005)