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(54) Title: A METHOD AND AN ARRANGEMENT FOR DESPREADING A CODED SEQUENCE IN A COMMUNICATION SYSTEM ✓		
(57) Abstract The invention relates to a method and an arrangement for implementing a bank of correlators, corresponding to a set of Orthogonal Gold codes, in a receiver used in a Direct Sequence Code Division Multiple Access system (DS-CDMA). The bank of correlators generates N correlation values ($CV_0, \dots, CV_{N-1}$) from N received symbols ($s_0, s_1, \dots, s_{N-1}$) in a sequence. The received symbol sequence ($s_0, s_1, \dots, s_{N-1}$), where each symbol has been spread by an Orthogonal Gold code respectively, is buffered (401). The buffered symbol sequence is multiplied (402) element-by-element with an arbitrary sequence ($a_0, a_1, \dots, a_{N-1}$), in order to obtain a set of products ($s_0 \cdot a_0, s_1 \cdot a_1, \dots, s_{N-1} \cdot a_{N-1}$). Said arbitrary sequence is the same sequence used when generating the Orthogonal Gold Codes. The set of products ($s_0 \cdot a_0, s_1 \cdot a_1, \dots, s_{N-1} \cdot a_{N-1}$) is then permuted (403) in order to obtain a sequence, which is equal to a sum of sequences from a set of Walsh sequences. The sequence is then transformed (404) with Fast Hadamard Transform as to obtain said correlation values ($CV_0, \dots, CV_{N-1}$). <pre> graph TD 401[buffering] --> 402[multiplication] 402 --> 403[permutation] 403 --> 404[Fast Hadamard Transform] </pre>		