

On the capability of GAs to obtain families of codes with good correlation properties (2007)

Título: On the capability of GAs to obtain families of codes with good correlation properties

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Año: 2007 (3-5/10) Abstract: IEEE Instrumentation and Measurement Conferences In the last years, there have been some works in which Genetic Algorithms (GAs) are used in order to obtain families of binary sequences with good correlation properties. In this work, one of those approaches is analyzed with a double objective. First, the results obtained by GAs are compared with the set of optimal Kasami sequences, the best families known until now. Second, we studied the convenience of considering, in the GA objective function, the filtering effect that the transducers have on the modulated signals, despite the increase of computing time. Finally, the performance of one of the sets of codes obtained with GAs is shown in a real ultrasonic LPS.