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The use of new technologies in cryptanalysis

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The problem of protecting information resources is now becoming increasingly important. The report provides an overview of modern methods of cryptanalysis, namely, the use of genetic algorithms as a tool for recognizing encryption algorithms. A number of quantum cryptanalysis algorithms are also analyzed. Their computational complexity is compared with the computational complexity of similar classical algorithms. It is concluded that if practical examples of a quantum computer appear, modern asymmetric encryption systems will need to be improved and modified.

Key words: neural networks, cryptanalysis, gene algorithm, ciphers, quantum computers, cryptography, cryptographic security.

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