

QUANTUM COMPUTING IN INFORMATION RETRIEVAL

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Mathematical basis of quantum mechanics allows its well use for tasks of cognitive informatics: conceptual analysis, learning and information retrieval.

For farther development of concepts formation, learning, and information retrieval technologies utilization of quantum methods of contextuality and entanglement, interference, quantum range and semantic similarity are very important: they introduced the new step in information science and technology.

In quantum computation the Grover's algorithm is of most importance. The presentation considers the quantum computing based on the mathematical machines of quantum groups and quantum logic gates. Such computing is used in unstructured data bases in one of the options for the iterative Grover's search algorithm.