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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	<p>""Contents""; ""Preface""; ""Quantum algorithms in group theory""; ""1. Introduction""; ""2. The basics of quantum computing""; ""3. The Deutsch-Jozsa algorithm""; ""4. Shor's algorithm and factoring integers""; ""5. Grover's algorithm""; ""6. Watrous' algorithms for solvable groups""; ""References""; ""Genetic algorithms and equations in free groups and semigroups""; ""1. Introduction""; ""2. A genetic algorithm framework on the free group""; ""3. Choosing problems""; ""4. Traceback""; ""5. Coevolution""; ""6. The genus problem and equations in a free semigroup""</p> <p>""7. The algorithm for the genus problem""; ""8. Discussion""; ""9. One more case study: restricted conjugacy problem in free partially commutative groups""; ""References""; ""One variable equations in free groups via context free languages""; ""1. Introduction""; ""2. Results from Language Theory""; ""3. Proof of Theorem 1""; ""References""; ""Whitehead method and genetic algorithms""; ""1. Introduction""; ""2. Whitehead method""; ""3. Description of the genetic algorithm""; ""4. Experiments and results""; ""5. Time complexity of GWA""; ""6.</p>

Mathematical problems arising from the experiments"

"References""The structure of automorphic conjugacy in the free group of rank two"; "1. The automorphism graph of  $F_2$ "; "2.

Combinatorial groundwork"; "3. The structure within levels"; "4.

Algorithmic applications"; "5. Computational tools"; "6. Conclusions

and future work"; "References"; "Pattern recognition approaches to solving combinatorial problems in free groups"; "1. Introduction"; "2.

General remarks on pattern recognition tasks"; "3. Feature vectors";

"4. Pattern recognition tools and models"; "5. Recognizing Whitehead minimal words in free groups"

"References""Experimenting with primitive elements in  $F_2$ "

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