

## A GENETIC ALGORITHM WITH TABU SEARCH FOR MULTIMODAL AND

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[A Genetic Algorithm With Tabu Search For Multimodal And](#)

However, most proposed methods have utilized genetic algorithms to explore global candidates and tabu search to exploit local optimal points. Unlike such methods so far, this paper proposes a new...

[A Genetic Algorithm with Tabu Search for Multimodal and ...](#)

The integration of genetic algorithms (GAs) and tabu search is one of traditional problems in function optimization in the GA literature. However, most proposed methods have utilized genetic algorithms to explore global candidates and tabu search to exploit local optimal points. A Genetic Algorithm with Tabu Search for Multimodal and...

[A genetic algorithm with Tabu search for multimodal and ...](#)

A Genetic Algorithm with Tabu Search for Multimodal and Multiobjective Function Optimization}, booktitle = {Proc. the Genetic and Evolutionary Computation Conference (GECCO2000)}, year = {2000}, pages = {291--298}}

[A Genetic Algorithm and Tabu Search for Multi Objective ...](#)

This paper presents a new genetic algorithm with tabu list and sharing scheme for optimizing the design of electrical machines. The design problem was formulated as a multimodal function optimization problem. All the obtained solutions are divided into clusters before being judged by a trained neural network to decide which solution is optimal. From the results of examples, as well as comparisons with classical genetic algorithms (GAs) with sharing scheme, we can see that the proposed GA ...

[A hybrid genetic algorithm and tabu search for a multi ...](#)

In this paper, we propose a combination of a genetic algorithm with a tabu search in a holonic multiagent model for the FJSP. In fact, firstly, a scheduler agent applies a genetic algorithm for a global exploration of the search space. Then, secondly, a local search technique is used by a set of cluster agents to guide the research in promising regions of the search space and to improve the quality of the final population. To evaluate our approach, numerical tests are made based on two sets ...

[A multipopulation genetic algorithm aimed at multimodal ...](#)

Hybrid genetic algorithm and tabu search for finite capacity material requirement planning system in flexible flow shop with assembly operations A hybrid Differential Evolution—Tabu Search algorithm for the solution of Job-Shop Scheduling Problems

[Tabu Search Algorithms for Multimodal and Multi-Objective ...](#)

It is one of the most important meta-heuristic approaches besides genetic algorithms and simulated annealing. Tabu search is an optimization algorithm constructed in 1989 by Fred Glover. If you are interested in Algorithms and Data Structures then check out this course! Tabu Search – Motivation. Most of the problem are NP-complete or NP-hard. Which means it would take a lot of time for an ...

[A Genetic-Based Tabu Search Algorithm for Optimal DG ...](#)

The proposed method combines a global search genetic algorithm in a course-to-fine resolution space with a local (Tabu) search algorithm. Such hybridization enhances the power of the search technique by virtue of inducing hill climbing and fast searching capabilities of Tabu search process. The approach can reach the global or near-global optimum for the functions in high dimensional space ...

[\[PDF\] A Hybrid Genetic Algorithms and Tabu Search for ...](#)

The Flexible Job Shop scheduling Problem (FJSP) is an extension of the classical Job Shop scheduling Problem (JSP) presenting an additional difficulty caused by the operation assignment problem on one machine out of a set of alternative machines. The

[Tabu-Suche – Wikipedia](#)

CiteSeerX - Document Details (Isaac Council, Lee Giles, Pradeep Teregowda): This paper presents a new genetic algorithm with tabu list and sharing scheme for optimizing the design of electrical machines. The design problem was for-mulated as a multimodal function optimization problem. All the obtained solu-tions are divided into clusters before being judged by a trained neural network to ...

[\(PDF\) Genetic Algorithm Combined with Tabu Search in a ...](#)

Tabu search and genetic algorithm were used to obtain an aggregate production planning model for two phase production in. Hybrid Tabu search and genetic algorithm were used for parameter estimation...

[Hybrid Genetic Algorithm, Simulated Annealing and Tabu ...](#)

The search for the global minimum of a potential energy function is very difficult since the number of local minima grows exponentially with the molecule size. The present work proposes the application of genetic algorithm and tabu search methods, which are called GAMCP (Genetic Algorithm with Matrix Coding Partitioning) [7], and TSVP (Tabu Search with Variable Partitioning) [8], respectively ...

[A hybrid genetic algorithm and particle swarm optimization ...](#)

In the tabu search part of the proposed algorithm, a simple short-term memory procedure is used to counter the danger of entrapment at a local optimum, and the premature convergence of the genetic algorithm. A simple cooling schedule has been implemented to apply the simulated annealing test in the algorithm. Numerical results showed the superiority of the solutions obtained compared to ...

[Parallel Genetic Algorithms Applied to the Traveling ...](#)

Kurahashi S, Terano T (2000) A genetic algorithm with tabu search for multimodal and multiobjective function optimization. In: Whitley LD, Goldberg DE, Cant-Paz E, Spector L, Parmee IC, Beyer HG (eds) GECCO. Morgan Kaufmann, pp 291–298 Google Scholar

[A hybrid of genetic algorithm and particle swarm ...](#)

This paper focuses on the research of multimodal transportation optimization model and algorithm, designs an intermodal shortest time path model and gives a solution to algorithm, constructs a multimodal transport network time analysis chart. By using genetic algorithms, the transportation scheme will be optimized. And based on each path's code, the population will be evolved to obtain the ...

[Integrating genetic algorithms, tabu search, and ...](#)

In computer science and operations research, a genetic algorithm (GA) is a metaheuristic inspired by the process of natural selection that belongs to the larger class of evolutionary algorithms (EA). Genetic algorithms are commonly used to generate high-quality solutions to optimization and search problems by relying on biologically inspired operators such as mutation, crossover and selection.

[Tabu Search: A Comparative Study - IntechOpen](#)

Tabu search is a local search algorithm that can be used for solving combinatorial optimization problems. It uses some memory structures such as tabu list or frequency list to force the searching process to cover new searching area and prevent early convergence to the local optimal solution. The advantage of TS lies in a strong local searching ability and the ability to jump out of local ...

[Tabu Search and Genetic Algorithm to Generate Test Data ...](#)

The Tabu\_Genetic Algorithm and other four methods are simultaneously used to search for good values of hyper-parameters of deep convolutional neural networks. Experimental results show that, compared to Random Search and Bayesian optimization methods, the proposed Tabu\_Genetic Algorithm finds a better model in less time. Whether in a low ...

[Genetic search - An approach to the nonconvex optimization ...](#)

python machine-learning library algorithm optimization genetic-algorithm machine-learning-algorithms artificial-intelligence genetic-algorithm-framework simulated-annealing hill-climbing evolutionary-algorithm optimization-algorithms particle-swarm-optimization tabu-search stochastic-optimizers metaheuristics discrete-optimization harmony-search continuous-optimization

[A hybrid algorithm for optimizing multi-modal functions ...](#)

A novel staged continuous Tabu search (SCTS) algorithm is proposed for solving global optimization problems of multi-minima functions with multi-variables. The proposed method comprises three stages that are based on the continuous Tabu search (CTS) algorithm with different neighbor-search strategies, with each devoting to one task. The method searches for the global optimum thoroughly and ...

[An effective hybrid genetic algorithm and tabu search for ...](#)

This study proposes a novel metaheuristic approach based on genetic algorithm to solve the time-dependent multimodal shortest path problem. In contrast with other researches, it could be extended to include other modes and big search area such as metropolises due to the high capabilities of proposed method. The other distinction between this method and existing systems and approaches is ...

[A Hybrid Genetic Algorithm, Simulated Annealing and Tabu ...](#)

This paper considers a new method that enables a genetic algorithm (GA) to identify and maintain multiple optima of a multimodal function, by creating subpopulations within the niches defined by the multiple optima, thus warranting a good "diversity". The algorithm is based on a splitting of the traditional GA into a sequence of two processes. Since the GA behavior is determined by the exploration / exploitation balance, during the first step (Exploration), the multipopulation ...

[performance - When to use Tabu Search with Genetic ...](#)

Due to NP-hard class of APP, we implemented a genetic algorithm and tabu search for solving this problem. The computational results show that these proposed algorithms obtain good-quality solutions for APP and could be efficient for large scale problems. References Aliev et al, 2007. Fuzzy-genetic approach to aggregate production-distribution planning in supply chain management. Information ...

[Study on Combinational Scheduling Optimization of Bus ...](#)

In computer science and operations research, a memetic algorithm (MA) is an extension of the traditional genetic algorithm. It uses a local search technique to reduce the likelihood of the premature convergence.. Memetic algorithms represent one of the recent growing areas of research in evolutionary computation. The term MA is now widely used as a synergy of evolutionary or any population-based ...

[A Tabu Search Algorithm for the Split Delivery Vehicle ...](#)

Parallel Tabu Search and Genetic Algorithm for the Job Shop Schedule Problem with Sequence Dependent Set Up Times. python genetic-algorithm cython job-scheduler np-hard combinatorics tabu-search combinatorial-optimization job-shop-scheduling job-shop-scheduling-problem Updated Jul 2, 2020; Python ...

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