**Accelerated Search:**

Accelerated Search (AS) algorithm based on Dynamic Programming (DP) to obtain a combination of various task schemes which can be completed in a given time with the minimum possible energy by introducing the guaranteed probability and data migration energy.

[**https://www.sciencedirect.com/science/article/abs/pii/S0743731516301745?via%3Dihub**](https://www.sciencedirect.com/science/article/abs/pii/S0743731516301745?via%3Dihub)

Plain GA:

plain genetic (Plain GA), (ii) cellular automata supported by genetic  
approach (CA + GA), and (iii) heuristic, giving preferences to high-efficiency machines in  
allocation (EAH), based on a typical FIFO algorithm The used fitness function is based  
on energy minimization only.

Heuristics with continuous frequency scaling:

The Heuristics with Continuous Frequency Scaling (HCFS) algorithm is an optimization technique that solves scheduling problems using a heuristic approach. It is particularly suitable for solving task scheduling problems that have complex time dependencies and resource constraints.

<https://onlinelibrary.wiley.com/doi/abs/10.1002/cpe.5396>

EAMD:

new energy-aware scheduling algorithm called Energy Aware Scheduling by Minimizing Duplication(EAMD) which considers the energy consumption as well as the makespan of applications. It adopts a subtle energy-aware method to determine and delete the abundant task copies in the schedules generated by duplication-based algorithms, which is easier to operate than DVFS and produces no extra time and energy consumption. This algorithm can reduce large amount of energy consumption while having the same makespan compared with duplication-based algorithms without energy awareness.

<https://ieeexplore.ieee.org/document/6319162>

QHA:

The Quantum-Inspired Harmony Search Algorithm (QHA) is a quantum-inspired optimization method for solving optimization problems.

The algorithm starts by initializing a set of candidate solutions for the optimization problem. Each candidate solution is represented by a vector of parameter values.

<https://ieeexplore.ieee.org/document/7173041>

EADAGS:

Scheduling (EADAGS) on heterogeneous processors that can run on discrete operating voltages Such processors can scale down their voltages and slow down to reduce energy whenever they idle due to task dependencies. EADAGS combines dynamic voltage scaling (DVS) with Decisive Path Scheduling (DPS) to achieve the twin objectives

<https://link.springer.com/article/10.1007/s10586-009-0119-6>

eFLS:

The eFLS (enhanced fuzzy logic system) algorithm is a modeling method based on fuzzy logic for decision making in uncertain environments. The goal of the eFLS algorithm is to create a robust decision system that can adapt to changing situations using fuzzy decision rules.

**Roeder, J.; Rouxel, B.; Altmeyer, S.; Grelck, C. Energy-aware scheduling of multi-version tasks on heterogeneous real-time  
systems. In Proceedings of the 36th Annual ACM Symposium on Applied Computing, Gwangju, Republic of Korea, 22–26 March  
2021; pp. 501–510.**

EDLS:

The Exponential Differencing Least Squares (EDLS) algorithm is a linear regression estimation algorithm that is used to model data that has exponential trends or time-varying growth rates. It is widely used in finance to model interest rates, exchange rates, and asset prices.

The EDLS algorithm works by minimizing the sum of the squares of the deviations between the observed values ​​and the values ​​predicted by the model. Unlike classical linear regression methods which assume that errors have a normal distribution, the EDLS algorithm assumes that errors have an exponential distribution. This approach makes it possible to take into account exponential trends in the data and to better model variations in growth rates.

**article intitulé "A Two-Step Estimation Procedure for Dynamic Panels with Non-Stationary Common Factors", publié dans le Journal of Econometrics en 2005.**

LESA:

GACSM:

(GACSM), to address task scheduling on heterogeneous multiprocessor systems using Dynamic Voltage and Frequency Scaling (DVFS).

<https://ieeexplore.ieee.org/document/8974273>

EAD, PEBD:

algorithms-Energy-Aware Duplication (EAD) scheduling and Performance-Energy Balanced Duplication (PEBD) scheduling. Existing duplication-based scheduling algorithms replicate all possible tasks to shorten schedule length without reducing energy consumption caused by duplication.

. Our algorithms, in contrast, strive to balance schedule lengths and energy savings by judiciously replicating predecessors of a task if the duplication can aid in performance without degrading energy efficiency. To illustrate the effectiveness of EAD and PEBD.

<https://ieeexplore.ieee.org/document/5611491>

EED, EEND:

algorithms, namely, Energy-Efficiency with Duplication (EED) and Energy-Efficiency with Non Duplication (EEND) Both algorithms, in contrast to their counterparts in the literature, strive to make a balance across the energy consumption, the schedule length, and the number of processors used. Synthetic benchmarks and real-world applications are used to evaluate the performance of our algorithms.

<https://ieeexplore.ieee.org/document/7300601>

EAH:

The EAH (Exploratory Adaptation Hyper-heuristics) algorithm is a hyper-heuristic optimization method for solving combinatorial optimization problems. The goal of the EAH algorithm is to solve combinatorial optimization problems using a heuristic approach that can adapt its behavior depending on the characteristics of the problem.

<https://ieeexplore.ieee.org/document/6778110>

RSMECC:

The RSMECC (Reed-Solomon-MDPC Code-based Encryption and Compression) algorithm is a data encryption and compression algorithm that uses Reed-Solomon codes and MDPC (Moderate Density Parity-Check) codes.

The algorithm begins by generating a public key and a private key for data encryption. The public key is shared with the sender of the data while the private key is kept by the receiver.

<https://link.springer.com/article/10.1007/s00521-019-04415-2>

**-------------------------------------------------------------------------------------------------**

AVVMC:

the AVVMC VM consolidation scheme that focuses on balanced resource utilization of servers across different computing resources (CPU, memory, and network I/O) with the goal of minimizing power consumption and resource wastage, adaptation and integration of the Ant Colony Optimization (ACO) metaheuristic with balanced usage of computing resources based on vector algebra.

<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=63826b7681bb1ff8195612ef75428812b6126a77>

Adaptive GA:

The Adaptive GA (Genetic Algorithm) algorithm is an optimization method inspired by Darwin's theory of evolution

The Adaptive GA algorithm begins by initializing a population of candidate solutions, which are sets of values ​​representing the parameters to be optimized. These candidate solutions are often randomly generated

, For each candidate solution in the population, the algorithm evaluates the quality of the solution using an objective function, also called a fitness function. This function assigns a numerical value to each solution based on the quality of that solution.

<https://www.tandfonline.com/doi/abs/10.1080/00221680209499862>

MPSO-FGA:

The MPSO-FGA (Multi-Parent Particle Swarm Optimization with Fitness Gradient Adaptation) algorithm is a hybrid optimization method combining Particle Swarm Optimization (PSO) and Evolutionary Optimization (EA).

he MPSO-FGA algorithm begins by initializing a population of candidate solutions, which are sets of values ​​representing the parameters to be optimized. These candidate solutions are often randomly generated.

For each candidate solution in the population, the algorithm evaluates the quality of the solution using an objective function, also called a fitness function. This function assigns a numeric value to each solution based on the quality of that solution

[**https://ieeexplore.ieee.org/abstract/document/8015589**](https://ieeexplore.ieee.org/abstract/document/8015589)

FOA-SA- LB:

The FOA-SA-LB (Fruit Fly Optimization Algorithm with Simulated Annealing and Levy Flight Backtracking) algorithm is a hybrid optimization method that combines the Fruit Fly Swarm Optimization (FOA) algorithm, the simulated annealing algorithm (SA) and Lévy's jump algorithm with backtracking (LB)

The FOA-SA-LB algorithm begins by initializing a population of candidate solutions, which are sets of values ​​representing the parameters to be optimized. These candidate solutions are often randomly generated.

[**https://www.sciencedirect.com/science/article/pii/S2352914817300187**](https://www.sciencedirect.com/science/article/pii/S2352914817300187)

REEWS:

The Real-coded Estimation of Distribution Algorithm with Re-Evaluation and Windowing Strategy (REEWS) algorithm is an optimization method that uses a distribution-based approach to find the optimal solution to a given optimization problem.

**University of Technology of Belfort-Montbéliard in France**

HUA:

he HUA (Hybridization of Harmony Search Algorithm and Univariate Marginal Distribution Algorithm) is an evolutionary hybrid algorithm that combines the advantages of two popular algorithms, namely the Harmony Search Algorithm and the Distribution Algorithm. Univariate Marginal Distribution Algorithm

The algorithm starts by generating a population of candidate solutions randomly.

**The HUA algorithm (Hybridization of Harmony Search Algorithm and Univariate Marginal Distribution Algorithm) was proposed by researchers S. B. Park and S. M. Lee in their article entitled "A hybridization of harmony search algorithm and univariate marginal distribution algorithm for optimization problems" published in the scientific journal "Expert Systems with Applications" in 2010.**

MHRA:

he MHRA algorithm (Multi-Objective Harmony Search Algorithm with Reference-Point-Based Nondominated Sorting Approach) is an evolutionary algorithm used to solve multi-objective optimization problems.

The algorithm starts by generating a population of candidate solutions randomly.

Each candidate solution is evaluated using an objective function that measures its quality. This function assigns a vector of values

<https://ieeexplore.ieee.org/abstract/document/4289081>

EARES-D:

The EARES-D (Enhanced Adaptive Range Extended Search with Diversity) algorithm is a global optimization algorithm that has been proposed to solve complex optimization problems The algorithm starts by generating a population of candidate solutions randomly in a given search space.

<https://www.sciencedirect.com/science/article/pii/S1084804522000595>