

How can a whale optimization algorithm solve multi-objective problems?

Abdel-Basset et al. proposed a hybrid optimization method that combines the whale optimization algorithm with the Nelder-Mead simplex method to tackle multi-objective problems. Integrating the Nelder-Mead simplex and Pareto archive evolution strategy helps maintain diversity in the population and hastens convergence.

Is whale optimization algorithm based on humpback whales?

The Whale Optimization Algorithm inspired by humpback whales is proposed. The WOA algorithm is benchmarked on 29 well-known test functions. The results on the unimodal functions show the superior exploitation of WOA. The exploration ability of WOA is confirmed by the results on multimodal functions.

What is a whale optimization algorithm based on quadratic interpolation?

Sun Y, Yang T, Liu Z (2019) A whale optimization algorithm based on quadratic interpolation for high-dimensional global optimization problems.

Is there an improved whale optimization algorithm for forecasting water resources demand?

Guo W, Liu T, Dai F, Xu P (2020) An improved whale optimization algorithm for forecasting water resources demand. Appl Soft Comput 86:105925 Abdel-Basset M, El-Shahat D, El-henawy I (2020) A modified hybrid whale optimization algorithm for the scheduling problem in multimedia data objects. Concur Comput Practice Exp 32:e5137

Can a sine-adapted improved whale optimization algorithm solve a distributed power system problem?

Mohanty et al. presented a sine-adapted improved whale optimization algorithm (SiWOA) to solve benchmark functions and the distributed power system (DPS) problem. SiWOA incorporates the sine function with WOA for parameter selection and engages scaling factors to WOA to balance local and global search strategies during optimization.

Can opposition-based multi-objective whale optimization solve a data clustering problem?

Wang et al. proposed an opposition-based multi-objective whale optimization algorithm (MOWOA) to solve a data clustering problem and a hydropower plant scheduling problem in China. MOWOA uses opposition-based learning, global grid ranking, and a suitable external archive strategy to increase convergence speed and population diversity.

In this paper, an optimization model of day-ahead operation schedule for the microgrid is constructed aiming at minimizing operation costs, with consideration of maintenance, loss and ...

whale optimization algorithm (IWOA) with adaptive weight strategy and Levy flight trajectory is proposed in

this paper, to solve the optimal operations planning problem of MGs. Finally, in

"Photovoltaic, Energy storage, Direct current, Flexibility" (PEDF) microgrid, which is an important implementation scheme of the dual-carbon target, the reduction of its overall ...

Abstract: "Photovoltaic, Energy storage, Direct current, Flexibility" (PEDF) microgrid, which is an important implementation scheme of the dual-carbon target, the reduction of its overall cost is ...

A versatile mathematical optimization problem is formulated and solved using an efficient meta-heuristic technique called the whale optimization algorithm (WOA). The proposed strategy ...

An emission constraint environment dispatch problem solution with microgrid using Whale Optimization Algorithm Abstract: In this work, microgrid is modern small scale power system of ...

The whale optimization algorithm (WOA) was proposed by Mirjalili and Lewis in 2016. It is a new swarm intelligence optimization algorithm that simulates humpback whale hunting behavior. The main idea of the algorithm is ...

