

Accepted Manuscript

Title: A new meta-heuristic butterfly-inspired algorithm

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PII: S1877-7503(17)30685-3

DOI: <http://dx.doi.org/doi:10.1016/j.jocs.2017.06.003>

Reference: JOCS 702



To appear in:

Received date: 14-7-2016

Revised date: 3-4-2017

Accepted date: 5-6-2017

Please cite this article as: Xiangbo Qi, Yunlong Zhu, Hao Zhang, A new meta-heuristic butterfly-inspired algorithm, Journal of Computational Science <http://dx.doi.org/10.1016/j.jocs.2017.06.003>

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A new meta-heuristic butterfly-inspired algorithm

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Highlights:

- We propose a novel bio-inspired algorithm named Artificial Butterfly Optimization (ABO) algorithm. The new algorithm is based on the mate-finding strategy of some butterfly species.
- ABO is a mimic-life algorithm in grandness. If the flight strategies of artificial butterflies are redefined, ABO is able to develop a new algorithm.
- In ABO, two groups of artificial butterflies are able to strike a balance between the exploration and the exploitation of the search space.

Abstract. This paper proposes a novel bio-inspired algorithm named Artificial Butterfly Optimization (ABO) algorithm. The new algorithm is based on the mate-finding strategy of some butterfly species. Two groups of artificial butterflies are employed for simulating the flight strategies. If the flight strategies of artificial butterflies are redefined, ABO can develop a new algorithm. From this point, ABO is a mimic-life algorithm in grandness. By presenting three flight strategies, we build

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