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A novel wise step strategy for firefly algorithm. (English) Zbl 1309.65072
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Summary: Firefly algorithm is a bio-inspired optimization algorithm which has been empirically demonstrated to perform well on many optimization problems. However, it can easily get trapped in the local optima and causes low precision. Therefore, improvement of this disadvantage is the very important. In this paper, we propose a wise strategy for step setting, which considers the information of firefly's personal and the global best positions. The results show that the modified algorithm enhances the performance of the basic firefly algorithm.

MSC:

[65K05](#) Numerical mathematical programming methods
[90C26](#) Nonconvex programming, global optimization
[90C15](#) Stochastic programming
[65Y20](#) Complexity and performance of numerical algorithms

Keywords:

wise step strategy; firefly algorithm; local optima; global optimum; optimization; numerical example; performance

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