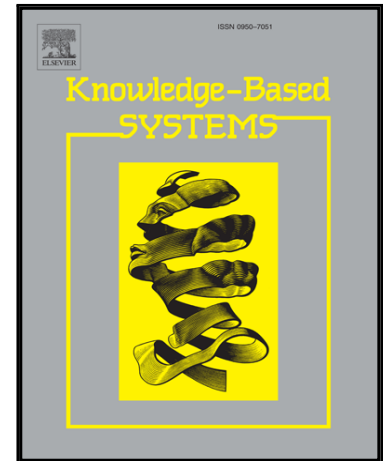


Accepted Manuscript

Indicator and Reference Points Co-Guided Evolutionary Algorithm for Many-Objective Optimization Problems

Chong Zhou , Guangming Dai , Maocai Wang , Xiangping Li

PII: S0950-7051(17)30494-X
DOI: [10.1016/j.knosys.2017.10.025](https://doi.org/10.1016/j.knosys.2017.10.025)
Reference: KNOSYS 4087



To appear in: *Knowledge-Based Systems*

Received date: 28 December 2016
Revised date: 14 August 2017
Accepted date: 20 October 2017

Please cite this article as: Chong Zhou , Guangming Dai , Maocai Wang , Xiangping Li , Indicator and Reference Points Co-Guided Evolutionary Algorithm for Many-Objective Optimization Problems, *Knowledge-Based Systems* (2017), doi: [10.1016/j.knosys.2017.10.025](https://doi.org/10.1016/j.knosys.2017.10.025)

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Highlights

- A new algorithm IREA is proposed through creatively combining indicator $\epsilon + I$ with reference points. IREA takes advantage of strength of indicator $\epsilon + I$ and reference points on the convergence and diversity respectively.
- In order to produce better offspring, a binary tournament mating selection using two tournament strategies Pareto dominance and perpendicular distance between solution and reference line to measure convergence and diversity respectively, is adopted.
- Our proposed algorithm with well-distributed reference point can achieve competitive performance on the problem with irregular Pareto front, due to indicator $\epsilon + I$ used in IREA.

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