Supplementary File for "Reliability of Indicator-based Comparison Results of Evolutionary Multi-Objective Algorithms"

Lie Meng Pang, Hisao Ishibuchi(✉), Yang Nan, and Cheng Gong

Guangdong Provincial Key Laboratory of Brain-inspired Intelligent Computation, Department of Computer Science and Engineering, Southern University of Science and Technology, Shenzhen, 518055, China
{panglm, hisao}@sustech.edu.cn, {12132350, 12150059}@mail.sustech.edu.cn

Abstract. This document contains experimental results for the paper "Reliability of Indicator-based Comparison Results of Evolutionary Multi-Objective Algorithms".

Keywords: Evolutionary multi-objective optimization · performance comparisons · performance indicators · reliability.

1 Termination Condition: 50 Generations

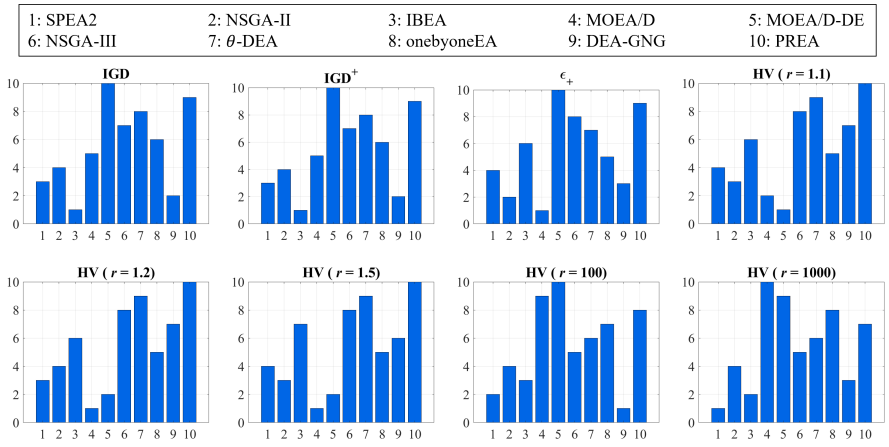

Fig. S1: Average rank of each indicator for each EMO algorithm on the DTLZ1 problem under the termination condition of 50 generations.

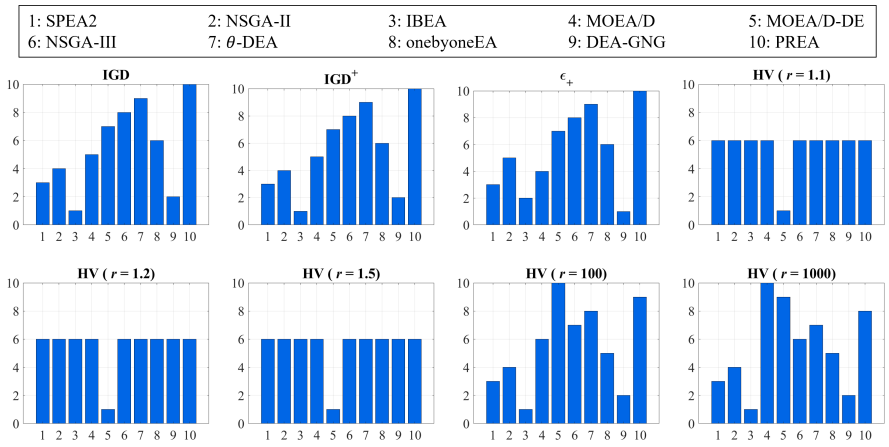

Fig. S2: Average rank of each indicator for each EMO algorithm on the DTLZ3 problem under the termination condition of 50 generations.

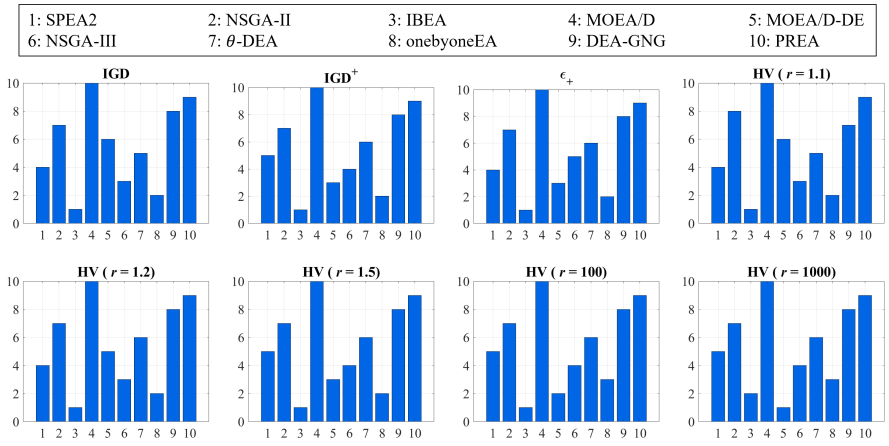

Fig. S3: Average rank of each indicator for each EMO algorithm on the DTLZ4 problem under the termination condition of 50 generations.

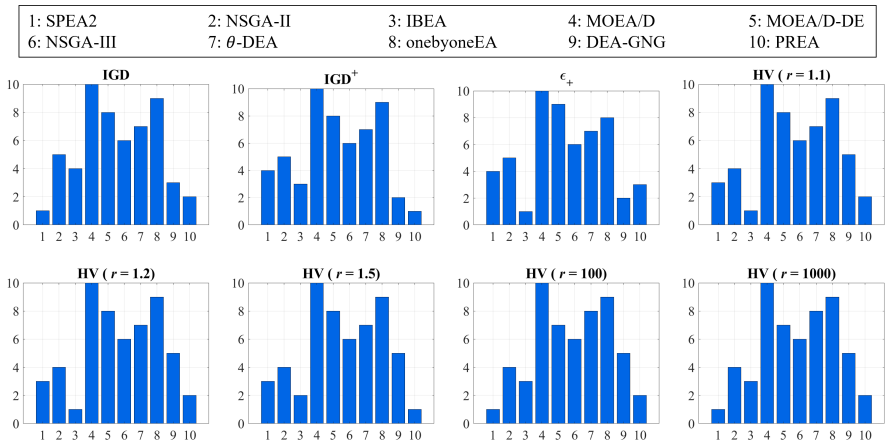

Fig. S4: Average rank of each indicator for each EMO algorithm on the RWA2 problem under the termination condition of 50 generations.

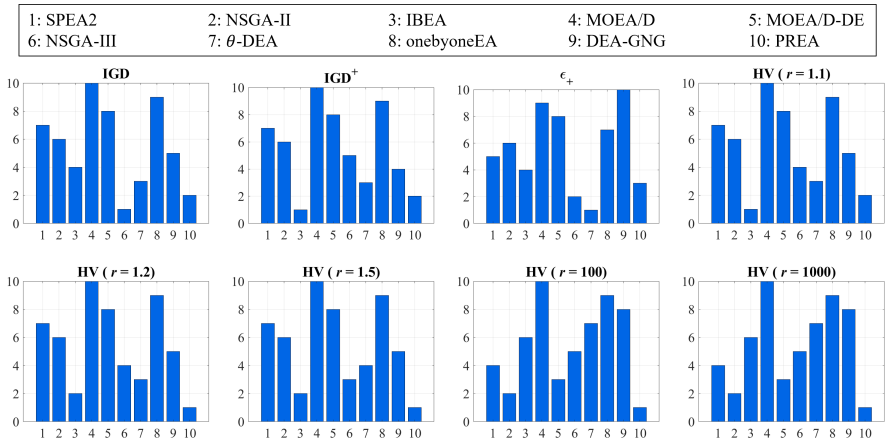

Fig. S5: Average rank of each indicator for each EMO algorithm on the RWA3 problem under the termination condition of 50 generations.

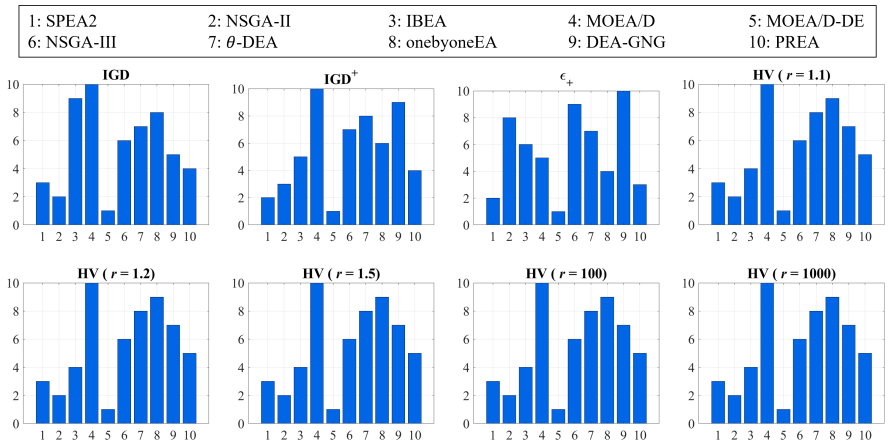

Fig. S6: Average rank of each indicator for each EMO algorithm on the RWA4 problem under the termination condition of 50 generations.

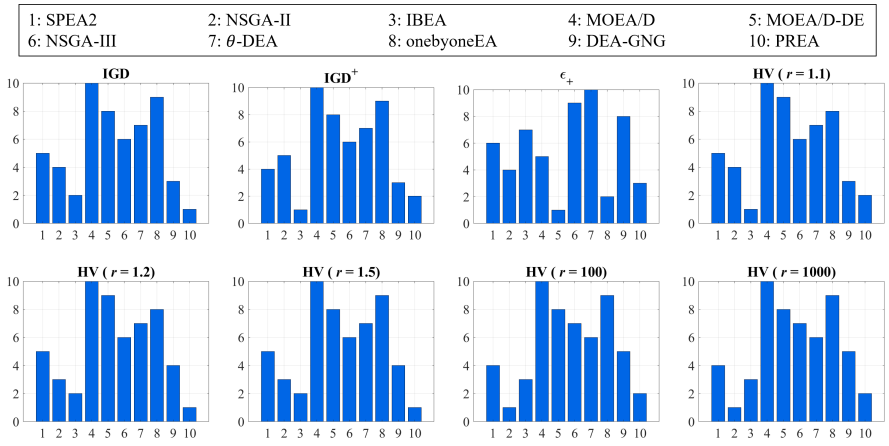

Fig. S7: Average rank of each indicator for each EMO algorithm on the RWA5 problem under the termination condition of 50 generations.

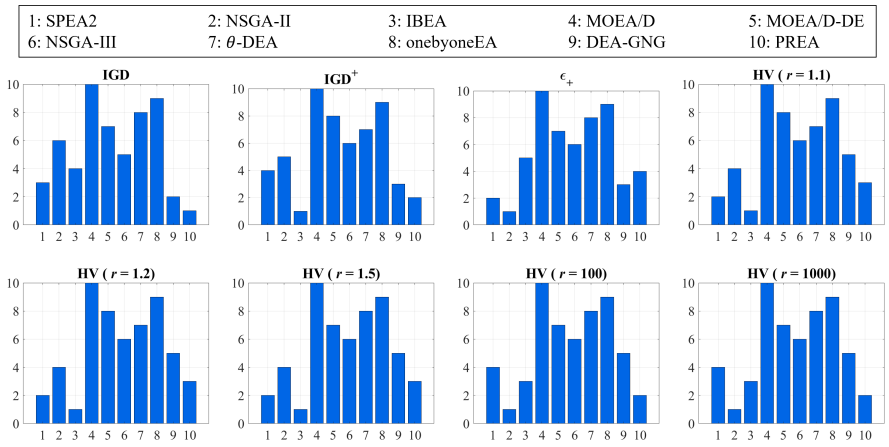

Fig. S8: Average rank of each indicator for each EMO algorithm on the RWA6 problem under the termination condition of 50 generations.

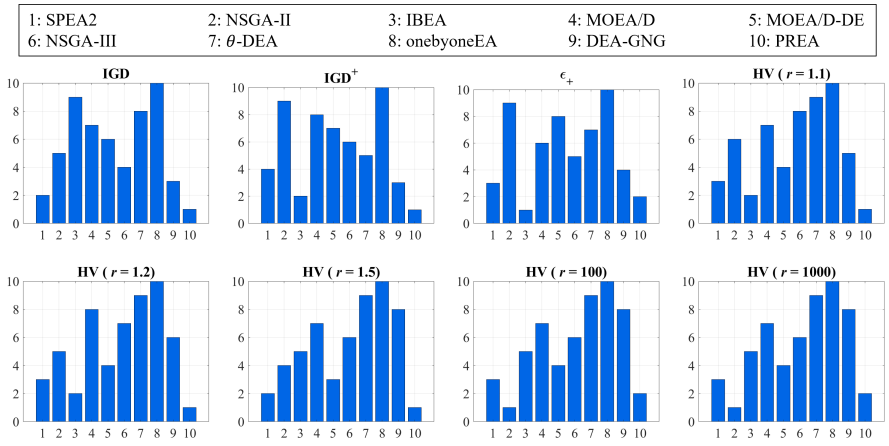

Fig. S9: Average rank of each indicator for each EMO algorithm on the RWA7 problem under the termination condition of 50 generations.

2 Termination Condition: 500 Generations

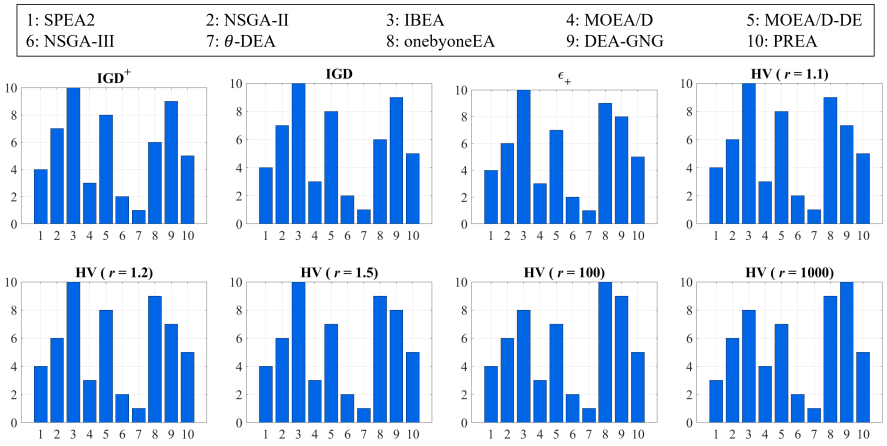

Fig. S10: Average rank of each indicator for each EMO algorithm on the DTLZ1 problem under the termination condition of 500 generations.

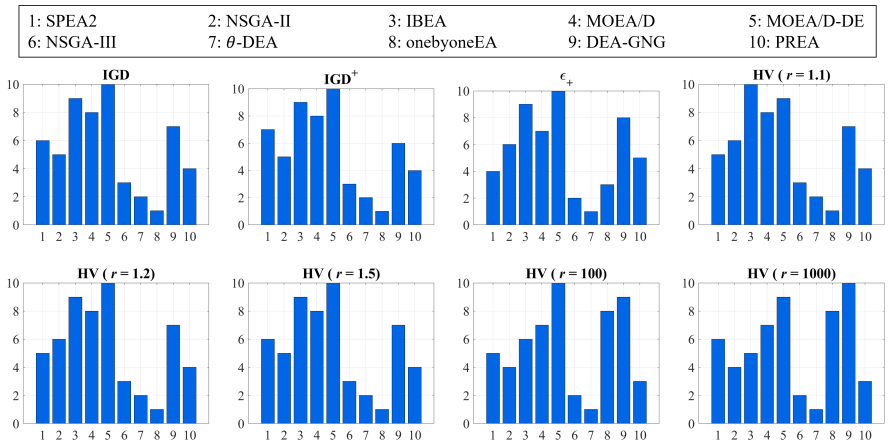

Fig. S11: Average rank of each indicator for each EMO algorithm on the DTLZ3 problem under the termination condition of 500 generations.

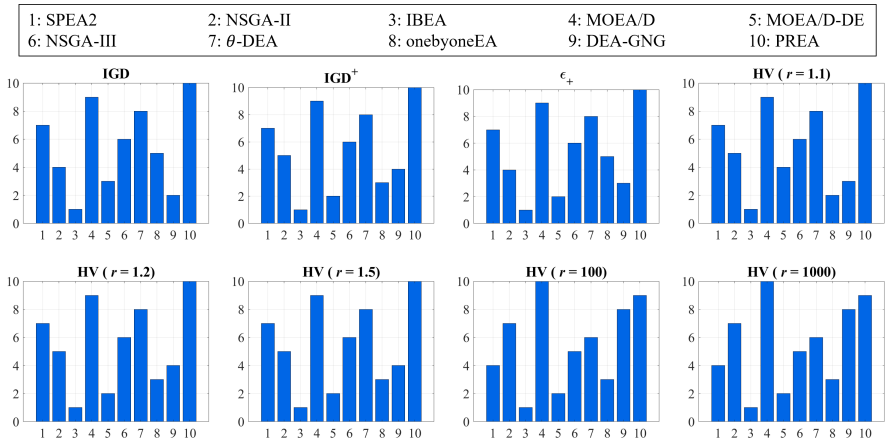

Fig. S12: Average rank of each indicator for each EMO algorithm on the DTLZ4 problem under the termination condition of 500 generations.

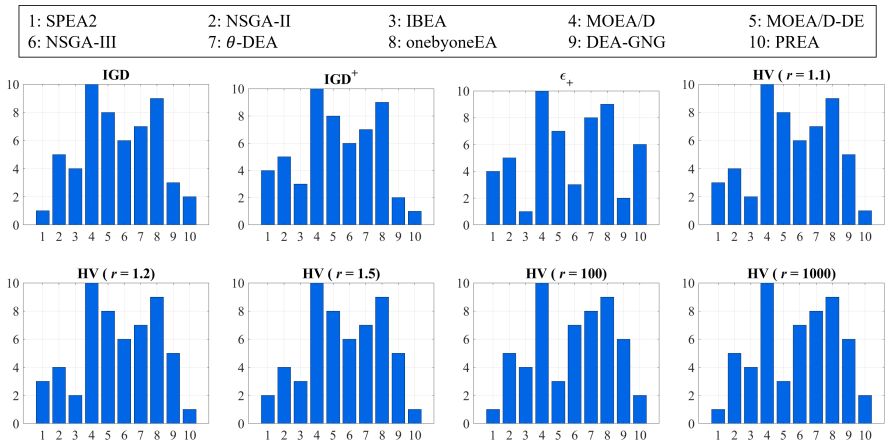

Fig. S13: Average rank of each indicator for each EMO algorithm on the RWA2 problem under the termination condition of 500 generations.

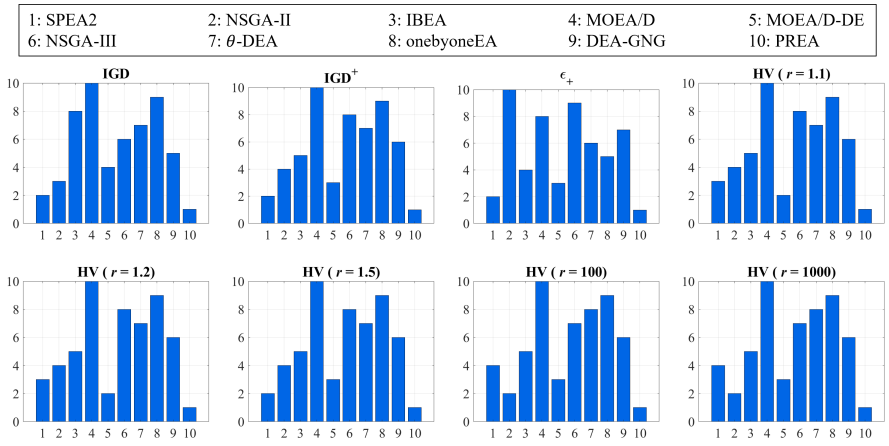

Fig. S14: Average rank of each indicator for each EMO algorithm on the RWA4 problem under the termination condition of 500 generations.

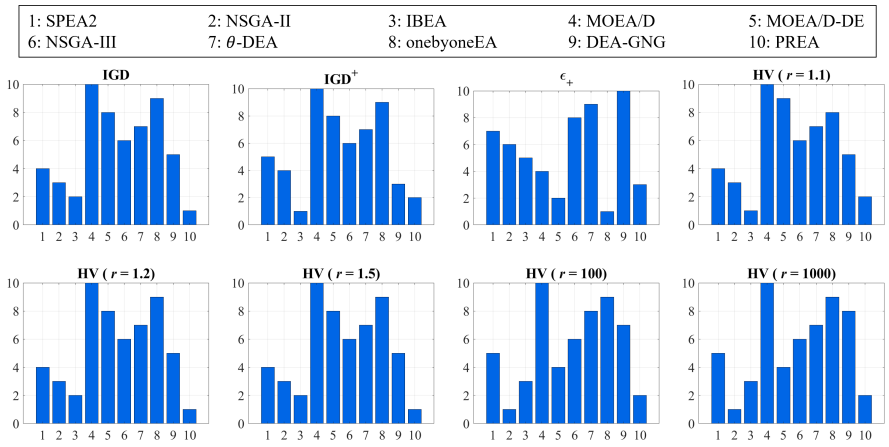

Fig. S15: Average rank of each indicator for each EMO algorithm on the RWA5 problem under the termination condition of 500 generations.

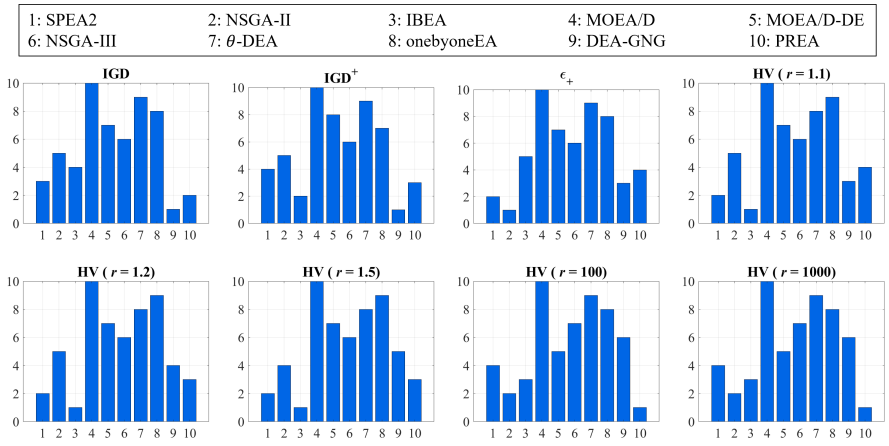

Fig. S16: Average rank of each indicator for each EMO algorithm on the RWA6 problem under the termination condition of 500 generations.

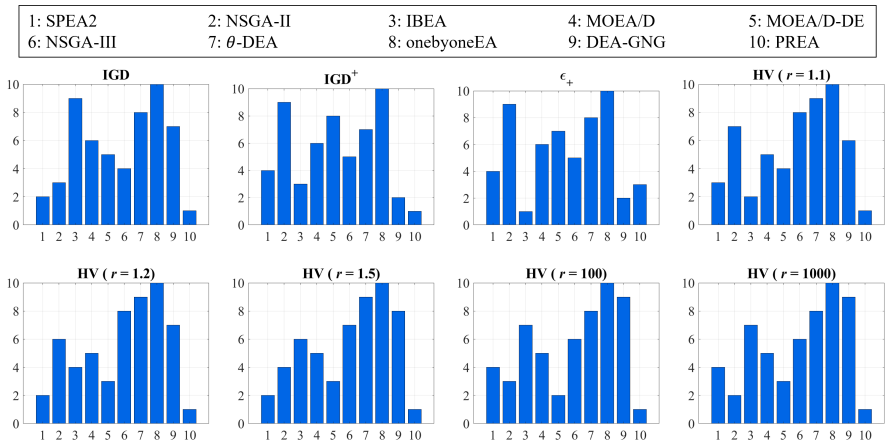

Fig. S17: Average rank of each indicator for each EMO algorithm on the RWA7 problem under the termination condition of 500 generations.