

TABLE I

THE HV RESULTS (MEDIAN VALUES) OF NTSPEA, RMNSGAI, RTEA, Two\_ARCH2 AND TSEA ON THE DTLZ PROBLEMS. THE BEST RESULT IN EACH PROBLEM IS MARKED. THE SYMBOLS " + ", " - " AND "≈" INDICATE THAT THE COMPARED ALGORITHM IS STATISTICALLY SIGNIFICANTLY SUPERIOR TO, INFERIOR TO, AND ALMOST EQUIVALENT TO TSEA, RESPECTIVELY (THE SIGNIFICANCE LEVEL IS 0.05).

Problems	NTSPEA	RMNSGAI	RTEA	Two_Arch2	TSEA
WFG1	4.02e-01 (4.01e-03) ≈	3.93e-01 (1.02e-02) -	4.01e-01 (4.39e-03) -	3.87e-01 (9.27e-03) -	4.04e-01 (5.96e-03)
	5.57e-01 (1.73e-01) +	5.55e-01 (1.94e-01) +	5.40e-01 (1.90e-01) +	5.21e-01 (2.10e-01) +	3.92e-01 (6.62e-03)
	3.64e-01 (6.50e-02) +	2.36e-01 (9.50e-02) -	3.46e-01 (1.24e-01) ≈	1.95e-01 (6.62e-02) -	3.60e-01 (1.18e-01)
WFG2	5.92e-01 (1.36e-02) -	5.55e-01 (1.62e-02) -	5.80e-01 (2.10e-02) -	5.56e-01 (2.24e-02) -	6.19e-01 (1.10e-02)
	5.58e-01 (3.12e-02) -	5.44e-01 (1.93e-02) -	5.62e-01 (1.87e-02) -	5.31e-01 (1.76e-02) -	6.00e-01 (1.31e-02)
	5.17e-01 (1.97e-02) ≈	5.13e-01 (2.12e-02) ≈	5.34e-01 (1.94e-02) ≈	4.56e-01 (2.35e-02) -	5.35e-01 (5.11e-02)
WFG3	5.56e-01 (1.19e-02) -	5.27e-01 (1.59e-02) -	5.58e-01 (1.52e-02) -	5.12e-01 (1.74e-02) -	5.78e-01 (1.00e-02)
	5.13e-01 (2.78e-02) -	5.18e-01 (1.54e-02) -	5.41e-01 (1.45e-02) -	4.65e-01 (2.74e-02) -	5.70e-01 (1.37e-02)
	4.71e-01 (1.47e-02) ≈	4.88e-01 (2.14e-02) ≈	4.95e-01 (2.01e-02) ≈	4.09e-01 (2.16e-02) -	4.83e-01 (5.40e-02)
WFG4	3.49e-01 (5.94e-03) -	3.30e-01 (6.33e-03) -	3.55e-01 (7.23e-03) -	3.18e-01 (8.86e-03) -	3.62e-01 (3.49e-03)
	3.37e-01 (1.89e-02) -	3.37e-01 (9.91e-03) -	3.62e-01 (8.56e-03) -	3.00e-01 (1.40e-02) -	3.70e-01 (5.69e-03)
	2.91e-01 (2.49e-02) -	3.03e-01 (2.72e-02) -	3.22e-01 (1.50e-02) ≈	2.02e-01 (2.28e-02) -	3.25e-01 (4.29e-02)
WFG5	3.66e-01 (7.32e-03) -	3.13e-01 (1.35e-02) -	3.62e-01 (1.06e-02) -	3.21e-01 (1.31e-02) -	3.85e-01 (4.50e-03)
	3.56e-01 (3.07e-02) -	2.97e-01 (1.75e-02) -	3.72e-01 (1.72e-02) -	3.04e-01 (1.46e-02) -	4.05e-01 (8.10e-03)
	2.98e-01 (2.33e-02) -	2.31e-01 (2.08e-02) -	3.12e-01 (1.88e-02) ≈	2.04e-01 (1.93e-02) -	3.30e-01 (4.57e-02)
WFG6	3.75e-01 (1.00e-02) -	3.46e-01 (1.62e-02) -	3.84e-01 (8.76e-03) -	3.31e-01 (2.08e-02) -	3.90e-01 (4.84e-03)
	3.50e-01 (3.26e-02) -	3.31e-01 (1.85e-02) -	3.77e-01 (1.39e-02) -	3.00e-01 (2.25e-02) -	4.05e-01 (8.62e-03)
	2.87e-01 (2.84e-02) -	2.84e-01 (3.51e-02) -	3.30e-01 (2.60e-02) ≈	2.15e-01 (2.34e-02) -	3.17e-01 (4.98e-02)
WFG7	3.88e-01 (8.05e-03) -	3.57e-01 (1.68e-02) -	3.81e-01 (8.74e-03) -	3.53e-01 (1.61e-02) -	4.07e-01 (4.36e-03)
	3.38e-01 (3.06e-02) -	3.37e-01 (1.49e-02) -	3.82e-01 (1.95e-02) -	3.02e-01 (1.86e-02) -	4.11e-01 (1.09e-02)
	3.21e-01 (2.51e-02) -	3.07e-01 (2.80e-02) -	3.33e-01 (1.94e-02) -	2.29e-01 (2.53e-02) -	3.57e-01 (5.07e-02)
WFG8	3.57e-01 (8.21e-03) -	3.23e-01 (9.81e-03) -	3.52e-01 (1.40e-02) -	3.21e-01 (1.13e-02) -	3.70e-01 (7.17e-03)
	3.20e-01 (2.53e-02) -	3.23e-01 (1.42e-02) -	3.50e-01 (1.24e-02) -	2.91e-01 (1.29e-02) -	3.76e-01 (7.69e-03)
	3.38e-01 (1.97e-02) ≈	3.33e-01 (2.45e-02) +	3.52e-01 (2.07e-02) +	2.56e-01 (1.91e-02) -	3.39e-01 (7.30e-02)
WFG9	3.98e-01 (9.74e-03) -	3.66e-01 (1.65e-02) -	3.92e-01 (1.50e-02) -	3.68e-01 (1.91e-02) -	4.06e-01 (6.89e-03)
	3.63e-01 (3.33e-02) -	3.46e-01 (2.51e-02) -	3.67e-01 (3.02e-02) -	3.55e-01 (3.44e-02) -	3.97e-01 (1.51e-02)
	3.58e-01 (4.99e-02) -	3.47e-01 (4.42e-02) -	3.66e-01 (3.69e-02) -	2.49e-01 (3.60e-02) -	4.28e-01 (4.33e-02)
Average Rank	2.78	3.93	2.19	4.78	1.33
+ / ≈ / -	2/5/20	2/2/23	2/6/19	1/0/26	