TABLE S8 AVERAGED IGD VALUE OBTAINED BY NSGA-II, MOMFEA, EBS, MATEA AND EMATO-MKT OF TASK $_1$ TO TASK $_5$ 0 ON CEC19-MOMATP1 AND CEC19-MOMATP2 PROBLEMS AFTER 30 INDEPENDENT RUNS, WHERE THE BOLD IS THE BEST RESULT OF ALL ALGORITHMS.

	CEC19-MOMATP1						CEC19-MOMATP2					
task	NSGA-II	MOMFEA	EBS	MaTEA	EMaTO-MKT	NSGA-II	MOMFEA	EBS	MaTEA	EMaTO-MKT		
T_1	1.03E-01	8.46E-01	1.95E+02	3.30E-02	1.61E-04	5.26E-02	1.73E-01	3.05E+00	2.91E-02	1.77E-04		
T_2	6.58E+01	9.65E-01	2.16E+02	3.33E-02	1.60E-04	5.15E-02	1.76E-01	3.09E+00	2.91E-02	1.77E-04		
T ₃	5.29E+01	7.14E-01	1.65E+02	3.31E-02	1.61E-04	5.01E-02	1.66E-01	3.05E+00	2.97E-02	1.79E-04		
T_4	1.06E+02	7.26E-01	1.23E+02	3.19E-02	1.61E-04	5.25E-02	1.72E-01	2.99E+00	2.42E-02	1.77E-04		
T ₅	5.29E+01	8.37E-01	1.83E+02	2.88E-02	1.60E-04	5.02E-02	1.71E-01	3.09E+00	2.75E-02	1.77E-04		
T ₆	1.19E-01	7.51E-01	1.58E+02	3.57E-02	1.62E-04	5.18E-02	1.75E-01	3.11E+00	2.86E-02	1.76E-04		
T ₇	1.29E-01	6.58E-01	1.35E+02	3.04E-02	1.61E-04	4.95E-02	1.71E-01	3.15E+00	2.60E-02	1.77E-04		
T ₈	1.59E+02	7.39E-01	1.68E+02	3.37E-02	1.59E-04	5.08E-02	1.55E-01	3.09E+00	3.11E-02	1.79E-04		
T ₉	9.80E-02	6.70E-01	1.43E+02	2.76E-02	1.59E-04	5.00E-02	1.83E-01	3.14E+00	2.84E-02	1.79E-04		
T ₁₀	1.04E-01	7.36E-01	1.71E+02	3.05E-02	1.59E-04	4.96E-02	1.83E-01	3.21E+00	3.17E-02	1.76E-04		
T ₁₁	5.29E+01	6.54E-01	1.24E+02	2.93E-02	1.60E-04	5.01E-02	1.78E-01	3.21E+00	2.74E-02	1.76E-04		
T ₁₂	1.09E-01	6.63E-01	1.35E+02	3.08E-02	1.60E-04	5.20E-02	1.75E-01	3.26E+00	2.83E-02	1.75E-04		
T ₁₃	1.10E-01	9.11E-01	1.82E+02	3.20E-02	1.59E-04	4.67E-02	1.69E-01	2.99E+00	2.99E-02	1.80E-04		
T ₁₄	5.29E+01	7.18E-01	1.33E+02	3.48E-02	1.60E-04	5.04E-02	1.69E-01	3.00E+00	3.05E-02	1.75E-04		
T ₁₅	5.29E+01	7.71E-01	2.15E+02	3.36E-02	1.60E-04	4.91E-02	1.62E-01	2.61E+00	2.89E-02	1.79E-04		
T ₁₆	5.30E+01	7.76E-01	1.68E+02	3.23E-02	1.61E-04	4.97E-02	1.72E-01	3.35E+00	2.96E-02	1.76E-04		
T ₁₇	1.15E-01	8.06E-01	1.75E+02	3.31E-02	1.60E-04	5.01E-02	1.73E-01	3.00E+00	2.60E-02	1.76E-04		
T ₁₈	9.30E-02	8.09E-01	1.97E+02	3.22E-02	1.58E-04	5.18E-02	1.76E-01	3.34E+00	2.97E-02	1.75E-04		
T ₁₉	1.09E-01	9.00E-01	1.97E+02	3.07E-02	1.60E-04	4.86E-02	1.63E-01	3.01E+00	2.83E-02	1.75E-04		
T ₂₀	1.09E-01	6.94E-01	1.52E+02	3.05E-02	1.61E-04	5.13E-02	1.70E-01	3.22E+00	2.75E-02	1.74E-04		
T ₂₁	1.14E-01	6.21E-01	1.17E+02	2.66E-02	1.63E-04	5.40E-02	1.72E-01	3.03E+00	3.23E-02	1.78E-04		
T ₂₂	5.29E+01	8.62E-01	1.76E+02	3.27E-02	1.62E-04	4.78E-02	1.65E-01	2.75E+00	2.73E-02	1.77E-04		
T ₂₃	1.48E-01	7.58E-01	1.61E+02	3.28E-02	1.59E-04	5.04E-02	1.81E-01	3.27E+00	2.78E-02	1.75E-04		
T_{24}	5.52E+01	6.66E-01	1.50E+02	3.46E-02	1.60E-04	4.55E-02	1.71E-01	3.31E+00	2.87E-02	1.77E-04		
T_{25}	1.27E-01	7.34E-01	1.57E+02	3.00E-02	1.59E-04	4.88E-02	1.66E-01	2.88E+00	2.38E-02	1.73E-04		
T ₂₆	2.19E-01	8.19E-01	1.66E+02	3.02E-02	1.60E-04	4.79E-02	1.81E-01	3.25E+00	2.95E-02	1.76E-04		
T_{27}	1.21E-01	7.18E-01	1.56E+02	3.06E-02	1.62E-04	4.86E-02	1.91E-01	3.36E+00	2.64E-02	1.76E-04		
T ₂₈	1.06E-01	7.80E-01	1.88E+02	3.20E-02	1.59E-04	4.66E-02	1.59E-01	2.97E+00	2.75E-02	1.79E-04		
T ₂₉	1.36E-01	6.64E-01	1.40E+02	2.82E-02	1.59E-04	4.86E-02	1.61E-01	2.59E+00	3.04E-02	1.79E-04		
T ₃₀	1.13E-01	8.53E-01	1.67E+02	2.73E-02	1.59E-04	4.94E-02	1.70E-01	3.02E+00	3.40E-02	1.77E-04		
T ₃₁	5.30E+01	6.85E-01	1.41E+02	3.46E-02	1.59E-04	4.29E-02	1.69E-01	3.37E+00	2.79E-02	1.76E-04		
T ₃₂	1.23E-01	9.34E-01	2.05E+02	3.13E-02	1.61E-04	4.85E-02	1.70E-01	2.95E+00	3.17E-02	1.76E-04		
T ₃₃	1.06E+02	7.86E-01	1.84E+02	3.19E-02	1.61E-04	5.03E-02	1.67E-01	3.35E+00	3.06E-02	1.77E-04		
T ₃₄	5.30E+01	7.48E-01	1.96E+02	2.96E-02	1.59E-04	4.88E-02	1.67E-01	2.53E+00	2.90E-02	1.76E-04		
T ₃₅	5.29E+01	8.05E-01	1.94E+02	3.46E-02	1.59E-04	5.15E-02	1.84E-01	3.58E+00	3.16E-02	1.75E-04		
T ₃₆	1.07E-01	7.76E-01	1.74E+02	2.94E-02	1.59E-04	4.98E-02	1.80E-01	3.44E+00	2.93E-02	1.77E-04		
T ₃₇	1.39E-01	7.73E-01	1.47E+02	3.19E-02	1.62E-04	5.02E-02 4.78E-02	1.76E-01	2.99E+00	3.01E-02	1.78E-04		
T ₃₈	1.11E-01	7.20E-01	1.43E+02	3.23E-02	1.61E-04	4.78E-02 4.92E-02	1.91E-01	3.24E+00	3.07E-02 2.92E-02	1.80E-04		
T ₃₉	1.39E-01 1.03E-01	7.49E-01 7.67E-01	1.64E+02 1.80E+02	3.40E-02 3.56E-02	1.60E-04 1.61E-04	4.92E-02 5.24E-02	1.68E-01 1.58E-01	2.87E+00 3.17E+00	2.92E-02 2.82E-02	1.76E-04 1.75E-04		
T ₄₀		7.84E-01	1.80E+02 1.70E+02		1.61E-04 1.60E-04	3.24E-02 4.79E-02	1.38E-01 1.77E-01	3.17E+00 3.07E+00	2.82E-02 2.63E-02	1.75E-04 1.76E-04		
T ₄₁	1.09E-01 1.02E-01	6.79E-01	1.70E+02 1.51E+02	3.17E-02 2.86E-02	1.60E-04 1.60E-04	4.79E-02 5.08E-02	1.7/E-01 1.86E-01	3.07E+00 3.28E+00	2.63E-02 3.00E-02	1.76E-04 1.77E-04		
T ₄₂	1.02E-01 1.36E-01	7.50E-01	1.51E+02 1.87E+02	3.23E-02	1.60E-04 1.60E-04	5.08E-02 5.02E-02	1.86E-01 1.73E-01	3.28E+00 3.32E+00	3.00E-02 2.60E-02	1.77E-04 1.78E-04		
T ₄₃	5.29E+01	6.63E-01	1.87E+02 1.74E+02	3.23E-02 3.11E-02	1.60E-04 1.61E-04	5.02E-02 4.96E-02	1.73E-01 1.62E-01	3.32E+00 2.71E+00	2.60E-02 2.66E-02	1.78E-04 1.76E-04		
T ₄₅	1.04E-01	1.02E+00	1.74E+02 2.53E+02	3.11E-02 3.24E-02	1.61E-04 1.60E-04	4.96E-02 4.70E-02	1.80E-01	3.32E+00	3.02E-02	1.76E-04 1.76E-04		
T ₄₆	1.04E-01 1.21E-01	7.36E-01	1.77E+02	2.97E-02	1.62E-04	4.70E-02 4.85E-02	1.50E-01 1.52E-01	2.67E+00	2.80E-02	1.74E-04		
T ₄₇	9.73E-01	8.03E-01	1.77E+02 1.79E+02	3.45E-02	1.61E-04	4.83E-02 4.89E-02	1.32E-01 1.74E-01	3.13E+00	2.80E-02 2.96E-02	1.74E-04 1.75E-04		
T ₄₈	5.29E+01	6.63E-01	1.79E+02 1.60E+02	3.43E-02 3.08E-02	1.62E-04	4.89E-02 4.94E-02	1.74E-01 1.68E-01	3.13E+00 3.25E+00	2.96E-02 2.95E-02	1.75E-04 1.77E-04		
T ₄₉	1.24E-01	9.59E-01	1.00E+02 1.94E+02	3.06E-02 3.06E-02	1.62E-04 1.62E-04	5.14E-02	1.72E-01	2.87E+00	2.93E-02 2.97E-02	1.77E-04 1.77E-04		
T ₅₀	1.24E-01 1.24E-01	7.84E-01	1.94E+02 1.98E+02	3.06E-02 3.15E-02	1.59E-04	5.14E-02 5.01E-02	1.72E-01 1.65E-01	3.28E+00	2.97E-02 2.64E-02	1.77E-04 1.75E-04		
1 50	1.24E-01	7.04E-U1	1.70E+UZ	3.13E-02	1.37E-04	J.01E-02	1.05E-01	3.20E+00	2.04E-02	1./3E-04		

TABLE S9 AVERAGED IGD VALUE OBTAINED BY NSGA-II, MOMFEA, EBS, MATEA AND EMATO-MKT OF TASK $_1$ TO TASK $_5$ 0 ON CEC19-MOMATP3 AND CEC19-MOMATP4 PROBLEMS AFTER 30 INDEPENDENT RUNS, WHERE THE BOLD IS THE BEST RESULT OF ALL ALGORITHMS.

		C	EC19-MOM	ATP3		CEC19-MOMATP4					
task	NSGA-II	MOMFEA	EBS	MaTEA	EMaTO-MKT	NSGA-II	MOMFEA	EBS	MaTEA	EMaTO-MKT	
T_1	2.01E-01	1.96E-01	1.71E+00	1.77E-01	2.43E-01	1.30E+00	1.74E+00	1.11E+01	8.15E-01	1.22E+00	
T_2	1.21E-01	1.25E-01	2.42E+00	1.75E-01	2.34E-01	1.41E+00	1.67E+00	1.17E+01	8.28E-01	1.18E+00	
T_3	1.88E-01	2.14E-01	3.90E+00	1.54E-01	2.37E-01	1.34E+00	1.69E+00	1.18E+01	7.90E-01	1.30E+00	
T_4	1.67E-01	1.76E-01	2.72E+00	1.97E-01	2.43E-01	1.38E+00	1.67E+00	1.05E+01	7.66E-01	1.22E+00	
T ₅	1.25E-01	1.43E-01	3.82E+00	1.63E-01	2.46E-01	1.39E+00	1.62E+00	1.18E+01	9.13E-01	1.16E+00	
T ₆	1.81E-01	1.74E-01	3.08E+00	2.20E-01	2.42E-01	1.37E+00	1.63E+00	1.15E+01	9.01E-01	1.23E+00	
T_7	1.39E-01	1.32E-01	1.98E+00	1.81E-01	2.49E-01	1.33E+00	1.58E+00	1.19E+01	8.26E-01	1.18E+00	
T ₈	1.42E-01	1.85E-01	3.76E+00	1.94E-01	2.37E-01	1.28E+00	1.67E+00	1.11E+01	9.19E-01	9.96E-01	
T ₉	1.66E-01	1.89E-01	2.23E+00	1.83E-01	2.43E-01	1.33E+00	1.72E+00	1.10E+01	7.80E-01	1.20E+00	
T_{10}	2.38E-01	1.78E-01	2.01E+00	8.27E-02	2.38E-01	1.56E+00	1.66E+00	1.21E+01	8.10E-01	1.14E+00	
T ₁₁	2.10E-01	1.63E-01	4.01E+00	1.69E-01	2.49E-01	1.42E+00	1.67E+00	1.23E+01	8.23E-01	1.12E+00	
T_{12}	1.63E-01	2.23E-01	3.23E+00	1.80E-01	2.38E-01	1.38E+00	1.64E+00	1.15E+01	8.59E-01	1.16E+00	
T ₁₃	1.72E-01	2.07E-01	2.62E+00	2.23E-01	2.49E-01	1.58E+00	1.73E+00	1.08E+01	8.95E-01	1.41E+00	
T ₁₄	1.25E-01	2.15E-01	7.45E-01	1.11E-01	2.37E-01	1.36E+00	1.66E+00	1.12E+01	8.28E-01	1.25E+00	
T ₁₅	1.97E-01	1.86E-01	2.73E+00	2.19E-01	2.50E-01	1.37E+00	1.70E+00	1.22E+01	8.87E-01	1.26E+00	
T ₁₆	1.77E-01	1.42E-01	2.88E+00	5.54E-02	2.29E-01	1.42E+00	1.63E+00	1.20E+01	8.26E-01	1.14E+00	
T ₁₇	2.30E-01	1.92E-01	2.89E+00	1.63E-01	2.09E-01	1.46E+00	1.68E+00	1.22E+01	9.37E-01	1.23E+00	
T ₁₈	1.54E-01	1.24E-01	2.67E+00	1.57E-01	2.34E-01	1.67E+00	1.63E+00	1.13E+01	9.03E-01	1.17E+00	
T ₁₉	1.62E-01	1.61E-01	2.97E+00	1.36E-01	2.39E-01	1.38E+00	1.60E+00	1.13E+01	8.70E-01	1.14E+00	
T ₂₀	1.86E-01	2.02E-01	1.86E+00	1.46E-01	2.47E-01	1.44E+00	1.71E+00	1.18E+01	8.32E-01	1.29E+00	
T ₂₁	1.74E-01	1.62E-01	1.13E+00	1.52E-01	2.42E-01	1.40E+00	1.69E+00	1.16E+01	8.39E-01	1.30E+00	
T ₂₂	1.15E-01	1.34E-01	4.29E+00	8.83E-02	2.33E-01	1.56E+00	1.65E+00	1.20E+01	8.80E-01	1.18E+00	
T ₂₃	1.59E-01	1.62E-01	3.67E+00	1.98E-01	2.51E-01	1.53E+00	1.71E+00	1.21E+01	9.63E-01	1.18E+00	
T ₂₄	1.58E-01	1.87E-01	3.83E+00	2.12E-01	2.23E-01	1.35E+00	1.66E+00	1.20E+01	9.06E-01	1.23E+00	
T ₂₅	1.77E-01	2.10E-01	3.62E+00	1.90E-01	2.47E-01	1.52E+00	1.69E+00	1.18E+01	7.73E-01	1.21E+00	
T ₂₆	1.95E-01	1.18E-01	2.09E+00	1.76E-01	2.46E-01	1.25E+00	1.64E+00	1.18E+01	8.15E-01	1.19E+00	
T_{27}	2.30E-01	2.19E-01	4.48E+00	1.74E-01	2.49E-01	1.49E+00	1.69E+00	1.18E+01	7.79E-01	1.24E+00	
T ₂₈	2.03E-01	1.63E-01	2.50E+00	1.65E-01	2.39E-01	1.37E+00	1.61E+00	1.01E+01	8.60E-01	1.24E+00	
T ₂₉	1.37E-01	1.91E-01	1.76E+00	1.94E-01	2.47E-01	1.37E+00	1.68E+00	1.14E+01	9.02E-01	1.33E+00	
T ₃₀	1.06E-01	1.60E-01	2.59E+00	9.28E-02	2.23E-01	1.41E+00	1.65E+00	1.12E+01	8.92E-01	1.15E+00	
T ₃₁	2.12E-01	1.95E-01	2.13E+00	1.97E-01	2.48E-01	1.51E+00	1.67E+00	1.21E+01	7.82E-01	1.14E+00	
T ₃₂	1.39E-01	2.02E-01	2.35E+00	1.11E-01	2.47E-01	1.33E+00	1.65E+00	1.20E+01	7.61E-01	1.27E+00	
T ₃₃	1.97E-01	1.93E-01	4.72E+00	1.96E-01	2.40E-01 2.41E-01	1.37E+00 1.42E+00	1.62E+00	1.13E+01	8.41E-01 7.29E-01	1.21E+00	
T ₃₄	1.81E-01	1.56E-01	1.21E+00	1.37E-01			1.71E+00	1.16E+01	1	1.05E+00	
T ₃₅	1.17E-01 1.56E-01	1.20E-01 1.63E-01	1.89E+00 2.72E+00	1.08E-01 1.20E-01	2.45E-01 2.36E-01	1.45E+00 1.50E+00	1.58E+00 1.63E+00	1.12E+01 1.16E+01	8.07E-01 8.19E-01	1.20E+00 1.32E+00	
T ₃₆	1.30E-01 1.41E-01	1.03E-01 1.16E-01	2.72E+00 3.00E+00	1.20E-01 1.39E-01	2.36E-01 2.28E-01	1.30E+00 1.38E+00	1.65E+00 1.65E+00	1.16E+01 1.17E+01	7.45E-01	1.32E+00 1.15E+00	
T ₃₇	1.41E-01 1.39E-01	1.16E-01 1.34E-01	2.82E+00	1.39E-01 1.77E-01	2.28E-01 2.46E-01	1.38E+00 1.42E+00	1.65E+00 1.61E+00	1.17E+01 1.14E+01	8.61E-01	1.13E+00 1.28E+00	
T ₃₉	1.59E-01 1.60E-01	1.34E-01 1.23E-01	4.13E+00	1.77E-01 1.64E-01	2.46E-01 2.03E-01	1.42E+00 1.50E+00	1.01E+00 1.70E+00	1.14E+01 1.08E+01	8.31E-01	1.23E+00	
T ₄₀	1.80E-01	2.13E-01	3.07E+00	2.44E-01	2.03E-01 2.51E-01	1.50E+00 1.50E+00	1.70E+00 1.61E+00	1.08E+01 1.13E+01	7.56E-01	1.19E+00	
T ₄₁	1.82E-01 1.46E-01	1.57E-01	2.72E+00	2.44E-01 1.75E-01	2.06E-01	1.30E+00 1.46E+00	1.01E+00 1.72E+00	1.13E+01 1.21E+01	8.33E-01	1.19E+00 1.30E+00	
T_{42}	9.29E-02	5.50E-02	2.72E+00 2.26E+00	1.75E-01 1.00E-01	2.47E-01	1.40E+00 1.44E+00	1.72E+00 1.68E+00	1.21E+01 1.24E+01	7.92E-01	9.91E-01	
T ₄₃	9.29E-02 1.31E-01	1.58E-01	1.38E+00	1.00E-01 1.39E-01	2.47E-01 2.07E-01	1.44E+00 1.47E+00	1.08E+00 1.72E+00	1.24E+01 1.10E+01	7.92E-01 7.96E-01	1.21E+00	
T ₄₄	1.63E-01	1.56E-01 1.61E-01	4.40E+00	1.39E-01 1.31E-01	2.43E-01	1.47E+00 1.55E+00	1.72E+00 1.68E+00	1.10E+01 1.23E+01	7.89E-01	1.21E+00 1.18E+00	
T ₄₅	1.03E-01 1.91E-01	1.56E-01	3.67E+00	1.64E-01	2.36E-01	1.50E+00	1.66E+00	1.18E+01	8.84E-01	1.40E+00	
T ₄₆	1.66E-01	1.46E-01	3.07E+00 3.11E+00	1.04E-01	2.41E-01	1.46E+00	1.61E+00	1.16E+01	8.45E-01	1.18E+00	
T ₄₇	1.13E-01	2.15E-01	2.62E+00	1.82E-01	2.37E-01	1.44E+00	1.68E+00	1.22E+01	8.41E-01	1.13E+00	
T ₄₈	1.47E-01	2.00E-01	1.34E+00	1.72E-01	2.43E-01	1.45E+00	1.66E+00	1.21E+01	8.57E-01	1.25E+00	
T ₄₉	2.26E-01	5.50E-01	3.57E+00	1.31E-01	5.63E-01	1.40E+00	1.56E+00	1.16E+01	7.67E-01	1.19E+00	
T ₅₀	2.04E-01	1.54E-01	3.22E+00	2.35E-01	2.45E-01	1.50E+00	1.72E+00	1.18E+01	8.02E-01	1.30E+00	
1 30	2.0 IL 01	110 12 01	J.222.100	U1	2.132 01	1.502.100	1.722100	1.102.01	3.02E 01	1.501100	

TABLE S10 AVERAGED IGD VALUE OBTAINED BY NSGA-II, MOMFEA, EBS, MATEA AND EMATO-MKT OF TASK $_1$ TO TASK $_{50}$ ON CEC19-MOMATP5 AND CEC19-MOMATP6 PROBLEMS AFTER 30 INDEPENDENT RUNS, WHERE THE BOLD IS THE BEST RESULT OF ALL ALGORITHMS.

	CEC19-MOMATP5						CEC19-MOMATP6					
task	NSGA-II	MOMFEA	EBS	MaTEA	EMaTO-MKT	NSGA-II	MOMFEA	EBS	MaTEA	EMaTO-MKT		
T_1	1.04E-03	1.48E-03	3.44E-02	7.43E-04	2.41E-04	5.87E-03	1.84E-02	4.37E-02	3.00E-03	2.00E-04		
T_2	1.10E-02	1.45E-03	3.40E-02	7.49E-04	2.42E-04	7.31E-03	1.94E-02	4.48E-02	3.52E-03	1.79E-04		
T_3	1.10E-02	1.39E-03	3.32E-02	7.26E-04	2.41E-04	7.01E-03	2.03E-02	4.58E-02	3.58E-03	1.95E-04		
T_4	1.09E-02	1.47E-03	3.34E-02	7.32E-04	2.42E-04	1.06E-02	1.85E-02	4.39E-02	3.39E-03	1.81E-04		
T_5	9.10E-03	1.42E-03	3.15E-02	7.04E-04	2.37E-04	1.50E-02	1.89E-02	4.71E-02	3.37E-03	1.82E-04		
T ₆	5.94E-03	1.36E-03	3.16E-02	7.51E-04	2.40E-04	6.35E-03	1.86E-02	4.57E-02	3.30E-03	1.87E-04		
T_7	2.03E-02	1.51E-03	3.52E-02	7.16E-04	2.42E-04	1.67E-02	1.95E-02	4.57E-02	3.25E-03	1.89E-04		
T ₈	1.48E-02	1.41E-03	3.10E-02	7.66E-04	2.41E-04	1.02E-02	1.87E-02	4.32E-02	3.68E-03	1.80E-04		
T ₉	1.01E-02	1.44E-03	3.46E-02	7.45E-04	2.45E-04	6.38E-03	2.03E-02	4.54E-02	3.54E-03	1.95E-04		
T ₁₀	2.07E-02	1.50E-03	3.58E-02	7.12E-04	2.41E-04	5.99E-03	1.83E-02	4.41E-02	3.22E-03	1.87E-04		
T ₁₁	9.32E-03	1.39E-03	3.15E-02	7.27E-04	2.39E-04	1.17E-02	1.79E-02	4.38E-02	3.56E-03	1.93E-04		
T ₁₂	9.84E-03	1.40E-03	3.35E-02	6.97E-04	2.45E-04	1.33E-02	1.83E-02	4.58E-02	3.34E-03	1.84E-04		
T ₁₃	6.00E-03	1.43E-03	3.49E-02	7.20E-04	2.43E-04	7.32E-03	1.98E-02	4.50E-02	3.64E-03	1.91E-04		
T ₁₄	1.30E-03	1.40E-03	3.50E-02	7.64E-04	2.42E-04	6.27E-03	1.96E-02	4.37E-02	3.70E-03	2.33E-04		
T ₁₅	1.03E-03	1.41E-03	3.24E-02	7.54E-04	2.44E-04	6.66E-03	1.95E-02	4.50E-02	3.60E-03	2.37E-04		
T ₁₆	5.48E-03	1.43E-03	3.45E-02	7.17E-04	2.44E-04	7.58E-03	1.80E-02	4.46E-02	3.19E-03	1.79E-04		
T ₁₇	1.53E-03	1.44E-03	3.23E-02	7.22E-04	2.39E-04	6.13E-03	1.82E-02	4.40E-02	3.26E-03	1.91E-04		
T ₁₈	1.66E-02	1.39E-03	3.21E-02	6.92E-04	2.42E-04	1.51E-02	2.18E-02	4.96E-02	3.64E-03	2.39E-04		
T ₁₉	1.12E-03	1.48E-03	3.47E-02	7.44E-04	2.42E-04	5.79E-03	1.75E-02	4.18E-02	3.49E-03	2.17E-04		
T ₂₀	2.02E-03	1.46E-03	3.46E-02	7.65E-04	2.43E-04	1.15E-02	2.17E-02	4.83E-02	3.51E-03	1.83E-04		
T ₂₁	1.19E-02	1.45E-03	3.45E-02	7.44E-04	2.36E-04	1.21E-02	1.77E-02	4.22E-02	3.64E-03	1.89E-04		
T ₂₂	1.01E-03	1.50E-03	3.30E-02	7.31E-04	2.36E-04	6.42E-03	1.85E-02	4.25E-02	2.90E-03	2.02E-04		
T ₂₃	1.06E-02	1.41E-03	3.44E-02	7.53E-04	2.43E-04	1.27E-02	1.99E-02	4.26E-02	3.32E-03	2.24E-04		
T ₂₄	6.76E-03	1.50E-03	3.56E-02	7.79E-04	2.45E-04	6.82E-03	1.98E-02	4.53E-02	3.13E-03	1.84E-04		
T ₂₅	1.22E-03	1.42E-03	3.41E-02	7.20E-04	2.46E-04	1.14E-02	1.92E-02	4.34E-02	3.50E-03	1.87E-04		
T ₂₆	5.52E-03	1.41E-03	3.36E-02	7.45E-04	2.44E-04	1.65E-02	1.89E-02	4.51E-02	3.26E-03	1.95E-04		
T ₂₇	5.28E-03	1.40E-03	3.39E-02	7.50E-04	2.38E-04	1.57E-02	2.08E-02	4.82E-02	3.61E-03	2.35E-04		
T ₂₈	1.20E-02	1.41E-03	3.38E-02	7.08E-04	2.40E-04	6.49E-03	1.81E-02	4.61E-02	3.31E-03	2.34E-04		
T ₂₉	9.73E-03	1.41E-03	3.41E-02	7.05E-04	2.39E-04	6.62E-03	1.91E-02	4.35E-02	3.45E-03	1.87E-04		
T ₃₀	1.36E-02	1.39E-03	3.51E-02	7.00E-04	2.41E-04	9.70E-03	1.89E-02	4.53E-02	3.75E-03	1.82E-04		
T ₃₁	7.53E-03	1.38E-03	3.21E-02	7.24E-04	2.45E-04	6.90E-03	1.90E-02	4.34E-02	3.03E-03	1.78E-04		
T ₃₂	1.19E-02	1.47E-03	3.55E-02	7.38E-04	2.38E-04	1.24E-02	2.01E-02	4.51E-02	3.30E-03	1.86E-04		
T ₃₃	3.78E-03	1.36E-03	3.14E-02	7.12E-04	2.43E-04	7.60E-03	2.07E-02	4.71E-02	3.31E-03	1.87E-04		
T ₃₄	6.27E-03	1.46E-03	3.54E-02	7.47E-04	2.44E-04	9.81E-03	1.86E-02	4.51E-02	3.48E-03	1.87E-04		
T ₃₅	9.46E-03	1.45E-03	3.23E-02	7.11E-04	2.44E-04	6.67E-03	1.89E-02	4.41E-02	3.65E-03	2.96E-04		
T ₃₆	1.82E-02	1.51E-03	3.60E-02	7.17E-04	2.36E-04	1.34E-02	1.98E-02	4.51E-02	3.40E-03	1.84E-04		
T ₃₇	9.43E-03	1.49E-03	3.50E-02	7.00E-04	2.37E-04	1.25E-02	1.91E-02	4.58E-02	3.49E-03	1.80E-04		
T ₃₈	1.58E-03	1.43E-03	3.39E-02	6.67E-04	2.42E-04	6.62E-03	1.90E-02	4.62E-02	3.62E-03	1.83E-04		
T ₃₉	1.28E-02	1.44E-03	3.29E-02	7.38E-04	2.47E-04	1.06E-02	1.87E-02	4.33E-02	3.07E-03	1.79E-04		
T_{40}	5.39E-03	1.45E-03	3.29E-02	6.83E-04	2.42E-04	6.79E-03	1.99E-02	4.47E-02	3.54E-03	1.91E-04		
T ₄₁	4.67E-03	1.43E-03	3.40E-02	7.15E-04	2.44E-04	7.92E-03	1.78E-02	4.48E-02	3.07E-03	1.90E-04		
T ₄₂	8.31E-03	1.44E-03	3.35E-02	7.05E-04	2.44E-04	6.65E-03	2.01E-02	4.74E-02	3.64E-03	1.87E-04		
T ₄₃	1.71E-02	1.48E-03	3.54E-02	7.11E-04	2.38E-04	7.24E-03	1.95E-02	4.55E-02	3.30E-03	1.91E-04		
T ₄₄	1.08E-02	1.43E-03	3.36E-02	7.02E-04	2.40E-04	5.96E-03	1.92E-02	4.25E-02	3.29E-03	1.92E-04		
T ₄₅	5.14E-03	1.44E-03	3.17E-02	7.05E-04	2.41E-04	6.72E-03	1.86E-02	4.39E-02	3.30E-03	1.86E-04		
T ₄₆	1.05E-03	1.38E-03	3.14E-02	7.22E-04	2.45E-04	6.14E-03	2.07E-02	4.94E-02	3.18E-03	1.91E-04		
T ₄₇	1.28E-03	1.36E-03	3.37E-02	7.37E-04	2.40E-04	7.10E-03	1.94E-02	4.52E-02	3.27E-03	1.88E-04		
T ₄₈	1.59E-03	1.43E-03	3.75E-02	7.43E-04	2.39E-04	6.20E-03	2.02E-02	4.40E-02	3.66E-03	2.70E-04		
T ₄₉	4.28E-03	1.40E-03	3.28E-02	8.07E-04	2.47E-04	6.04E-03	1.91E-02	4.46E-02	3.46E-03	1.85E-04		
T ₅₀	1.33E-02	1.37E-03	3.22E-02	7.67E-04	2.40E-04	1.24E-02	1.95E-02	4.55E-02	3.71E-03	2.05E-04		

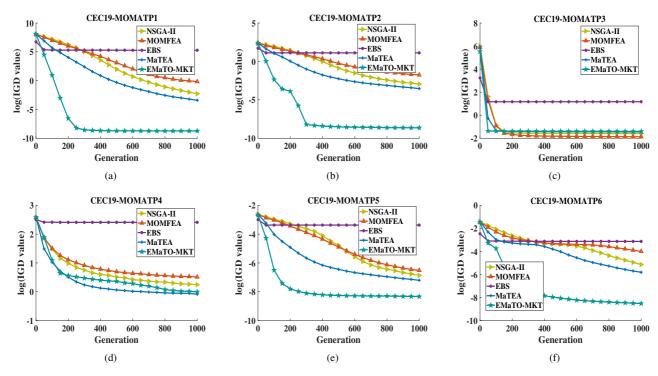


Fig. 6. The log(IGD value) numerical curves of NSGA-II, MOMFEA, EBS, MaTEA and EMaTO-MKT after running 30 times independently on CEC19-MOMATP test suite.

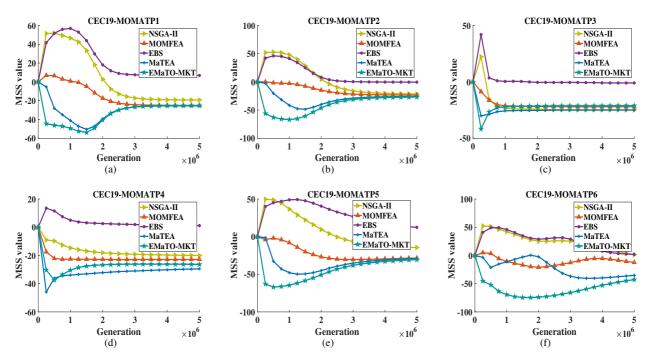


Fig. S2. The MSS value numerical curve of NSGA-II, MOMFEA, EBS, MaTEA and EMaTO-MKT running 30 times independently on CEC19-MOMATP test suite.