

Statistics and Supplementary Data

Supplementary material for paper: Recent Advances of the Bison Algorithm

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a) Complexity computation

10 dimensions				
<i>Algorithm</i>	T_0	T_1	<i>Mean T_2</i>	<i>Complexity</i>
BIA	3.14	1.15	5.09	1.25
CS	3.14	1.25	2.85	0.51
PSO	3.14	1.19	6.39	1.66
BAT	3.14	1.21	4.75	1.13
FFA	3.14	1.16	75.89	23.78

30 dimensions				
<i>Algorithm</i>	T_0	T_1	<i>Mean T_2</i>	<i>Complexity</i>
BIA	2.99	1.40	10.19	2.94
CS	2.99	1.43	3.23	0.60
PSO	2.99	1.47	15.59	4.73
BAT	2.99	1.65	7.18	1.85
FFA	2.99	1.42	82.56	27.16

50 dimensions				
<i>Algorithm</i>	T_0	T_1	<i>Mean T_2</i>	<i>Complexity</i>
BIA	3.20	1.91	17.53	4.88
CS	3.20	1.85	3.90	0.64
PSO	3.20	1.90	23.85	6.86
BAT	3.20	1.76	9.81	2.52
FFA	3.20	1.88	81.77	24.97

b) Statistics of the Bison Algorithm

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	<i>min</i>	<i>max</i>	<i>mean</i>	<i>median</i>	<i>std</i>
f_1	1.75E+03	1.44E+05	4.07E+04	2.75E+04	3.60E+04
f_2	1.95E-02	2.40E+04	5.71E+03	3.88E+03	5.91E+03
f_3	2.02E+01	2.05E+01	2.04E+01	2.04E+01	6.57E-02
f_4	9.95E-01	2.34E+01	7.25E+00	5.97E+00	5.45E+00
f_5	3.73E+00	1.52E+03	1.07E+03	1.10E+03	3.12E+02
f_6	1.01E+01	4.71E+03	8.35E+02	3.55E+02	1.09E+03
f_7	1.94E-02	2.67E+00	6.06E-01	3.78E-01	6.15E-01
f_8	8.50E+00	2.21E+03	5.62E+02	3.81E+02	5.39E+02
f_9	1.00E+02	1.00E+02	1.00E+02	1.00E+02	4.96E-02
f_{10}	2.37E+02	2.25E+03	5.73E+02	4.64E+02	3.89E+02
f_{11}	7.99E-01	3.00E+02	2.22E+02	3.00E+02	1.30E+02
f_{12}	1.01E+02	1.03E+02	1.02E+02	1.02E+02	5.45E-01
f_{13}	2.88E+01	4.08E+01	3.32E+01	3.27E+01	2.88E+00
f_{14}	1.00E+02	1.16E+04	4.72E+03	5.56E+03	2.95E+03
f_{15}	1.00E+02	1.00E+02	1.00E+02	1.00E+02	0.00E+00

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	<i>min</i>	<i>max</i>	<i>mean</i>	<i>median</i>	<i>std</i>
f_1	5.79E+04	9.19E+05	2.66E+05	1.99E+05	1.91E+05
f_2	2.24E-01	5.95E+03	1.53E+03	1.09E+03	1.64E+03
f_3	2.09E+01	2.11E+01	2.10E+01	2.10E+01	4.33E-02
f_4	1.79E+01	1.76E+02	7.13E+01	3.38E+01	5.71E+01
f_5	5.85E+03	7.30E+03	6.74E+03	6.73E+03	2.96E+02
f_6	8.53E+03	1.47E+05	5.25E+04	4.45E+04	2.99E+04
f_7	3.86E+00	1.39E+01	9.53E+00	1.00E+01	2.45E+00
f_8	4.89E+03	8.51E+04	2.88E+04	2.40E+04	1.74E+04
f_9	1.02E+02	2.34E+02	1.05E+02	1.03E+02	1.84E+01
f_{10}	8.64E+03	2.90E+05	7.73E+04	6.27E+04	5.70E+04
f_{11}	3.01E+02	6.64E+02	4.50E+02	4.95E+02	1.22E+02
f_{12}	1.04E+02	1.07E+02	1.05E+02	1.05E+02	5.93E-01
f_{13}	1.09E+02	1.24E+02	1.16E+02	1.16E+02	3.20E+00
f_{14}	3.14E+04	3.68E+04	3.30E+04	3.30E+04	9.27E+02
f_{15}	1.00E+02	1.00E+02	1.00E+02	1.00E+02	0.00E+00

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	<i>min</i>	<i>max</i>	<i>mean</i>	<i>median</i>	<i>std</i>
f_1	1.38E+05	1.08E+06	4.27E+05	3.72E+05	2.17E+05
f_2	3.65E+01	1.38E+04	4.74E+03	4.43E+03	3.37E+03
f_3	2.11E+01	2.12E+01	2.11E+01	2.11E+01	3.10E-02
f_4	3.58E+01	3.93E+02	1.48E+02	7.36E+01	1.28E+02
f_5	1.15E+04	1.33E+04	1.26E+04	1.26E+04	3.79E+02
f_6	2.05E+04	1.21E+06	1.83E+05	1.50E+05	1.66E+05
f_7	7.41E+00	9.31E+01	5.50E+01	7.62E+01	3.28E+01
f_8	1.15E+04	3.53E+05	1.11E+05	9.14E+04	7.31E+04
f_9	1.04E+02	6.29E+02	1.23E+02	1.04E+02	8.05E+01
f_{10}	5.16E+03	1.00E+05	2.04E+04	1.35E+04	1.83E+04
f_{11}	5.56E+02	8.46E+02	6.70E+02	6.77E+02	6.13E+01
f_{12}	1.06E+02	1.10E+02	1.08E+02	1.09E+02	8.29E-01
f_{13}	2.00E+02	2.24E+02	2.17E+02	2.17E+02	4.09E+00
f_{14}	4.95E+04	7.84E+04	5.42E+04	4.95E+04	1.01E+04
f_{15}	1.00E+02	1.00E+02	1.00E+02	1.00E+02	0.00E+00

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	<i>min</i>	<i>max</i>	<i>mean</i>	<i>median</i>	<i>std</i>
f_1	2.51E-02	2.28E+03	4.78E+02	1.36E+02	6.57E+02
f_2	1.42E-07	8.14E-05	9.51E-06	7.16E-06	1.25E-05
f_3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
f_4	1.29E-01	1.30E+00	3.29E-01	2.33E-01	2.76E-01
f_5	0.00E+00	2.89E+01	7.27E+00	4.97E+00	6.28E+00
f_6	0.00E+00	3.94E-04	1.39E-05	0.00E+00	5.92E-05
f_7	1.14E+01	3.93E+01	2.43E+01	2.72E+01	8.37E+00
f_8	9.95E-01	3.05E+01	7.89E+00	5.97E+00	7.25E+00
f_9	0.00E+00	1.74E+00	1.41E-01	0.00E+00	3.79E-01
f_{10}	6.95E+00	1.47E+03	1.08E+03	1.13E+03	3.42E+02
f_{11}	2.81E-03	9.67E+00	2.89E+00	2.00E+00	2.62E+00
f_{12}	6.71E+02	3.24E+04	1.05E+04	9.01E+03	8.57E+03
f_{13}	8.09E+01	9.94E+03	2.98E+03	2.41E+03	2.64E+03
f_{14}	1.62E+01	4.97E+01	3.32E+01	3.35E+01	7.77E+00
f_{15}	5.08E+00	1.08E+02	2.92E+01	2.68E+01	1.90E+01
f_{16}	3.98E-02	1.98E+02	2.31E+01	7.28E-01	4.81E+01
f_{17}	2.84E+00	8.27E+01	3.59E+01	2.88E+01	2.08E+01
f_{18}	2.75E+01	1.43E+04	3.82E+03	2.41E+03	4.03E+03
f_{19}	5.81E+00	1.74E+02	2.36E+01	2.08E+01	2.39E+01
f_{20}	0.00E+00	4.46E+01	5.45E+00	1.31E+00	1.09E+01
f_{21}	1.00E+02	2.28E+02	1.21E+02	1.00E+02	4.12E+01
f_{22}	1.00E+02	1.82E+02	1.02E+02	1.01E+02	1.15E+01
f_{23}	3.00E+02	3.31E+02	3.09E+02	3.09E+02	5.36E+00
f_{24}	1.00E+02	3.90E+02	3.23E+02	3.34E+02	4.21E+01
f_{25}	3.98E+02	4.50E+02	4.36E+02	4.45E+02	1.96E+01
f_{26}	0.00E+00	3.93E+02	2.83E+02	3.00E+02	5.89E+01
f_{27}	3.92E+02	4.19E+02	3.99E+02	3.99E+02	5.29E+00
f_{28}	3.00E+02	6.46E+02	4.54E+02	5.05E+02	1.48E+02
f_{29}	2.35E+02	3.39E+02	2.77E+02	2.73E+02	2.13E+01
f_{30}	9.57E+02	9.77E+05	1.28E+05	3.52E+03	3.13E+05

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	<i>min</i>	<i>max</i>	<i>mean</i>	<i>median</i>	<i>std</i>
f_1	2.86E+00	1.04E+04	2.15E+03	1.56E+03	2.16E+03
f_2	6.82E-02	3.77E+12	1.04E+11	2.82E+05	5.38E+11
f_3	4.09E+00	2.77E+02	7.54E+01	6.08E+01	6.99E+01
f_4	2.47E-04	6.79E+01	1.11E+01	4.00E+00	2.13E+01
f_5	1.89E+01	1.78E+02	7.50E+01	3.68E+01	6.12E+01
f_6	1.14E-13	4.44E-02	1.16E-03	4.32E-05	6.20E-03
f_7	4.60E+01	2.30E+02	1.83E+02	1.90E+02	3.31E+01
f_8	1.09E+01	1.79E+02	4.70E+01	2.69E+01	4.79E+01
f_9	0.00E+00	4.01E+01	6.56E+00	3.82E+00	7.44E+00
f_{10}	6.27E+03	7.44E+03	6.97E+03	6.97E+03	2.67E+02
f_{11}	6.09E+00	8.88E+01	3.20E+01	2.10E+01	2.57E+01
f_{12}	5.51E+03	7.59E+04	2.61E+04	2.60E+04	1.42E+04
f_{13}	2.29E+02	3.45E+04	1.28E+04	1.15E+04	9.36E+03
f_{14}	9.22E+01	1.73E+04	4.89E+03	3.17E+03	4.70E+03
f_{15}	6.51E+00	1.87E+04	4.05E+03	2.47E+03	4.63E+03
f_{16}	1.91E+01	1.69E+03	9.35E+02	1.06E+03	4.53E+02
f_{17}	1.42E+01	5.12E+02	1.25E+02	7.31E+01	1.07E+02
f_{18}	2.22E+04	7.32E+05	1.75E+05	1.57E+05	1.49E+05
f_{19}	4.67E+01	2.61E+04	6.22E+03	4.34E+03	6.72E+03
f_{20}	2.68E+01	7.70E+02	1.99E+02	1.55E+02	1.35E+02
f_{21}	2.13E+02	3.75E+02	2.69E+02	2.32E+02	5.80E+01
f_{22}	1.00E+02	1.02E+02	1.00E+02	1.00E+02	5.84E-01
f_{23}	3.51E+02	4.26E+02	3.81E+02	3.79E+02	1.35E+01
f_{24}	4.22E+02	5.43E+02	4.48E+02	4.47E+02	1.85E+01
f_{25}	3.84E+02	3.98E+02	3.88E+02	3.87E+02	2.07E+00
f_{26}	2.00E+02	3.11E+03	1.18E+03	1.33E+03	7.39E+02
f_{27}	5.12E+02	5.61E+02	5.32E+02	5.32E+02	1.15E+01
f_{28}	3.00E+02	4.14E+02	3.29E+02	3.00E+02	4.76E+01
f_{29}	4.18E+02	1.10E+03	5.85E+02	5.60E+02	1.74E+02
f_{30}	2.49E+03	1.04E+04	4.53E+03	4.14E+03	1.65E+03

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	<i>min</i>	<i>max</i>	<i>mean</i>	<i>median</i>	<i>std</i>
f_1	2.45E+00	9.37E+03	2.35E+03	1.70E+03	2.52E+03
f_2	6.76E+13	1.86E+28	3.65E+26	3.51E+19	2.61E+27
f_3	5.38E+03	2.07E+04	1.16E+04	1.15E+04	3.16E+03
f_4	4.40E-03	1.48E+02	6.50E+01	6.66E+01	5.03E+01
f_5	3.68E+01	3.78E+02	1.42E+02	7.16E+01	1.19E+02
f_6	6.06E-06	2.00E-02	2.32E-03	5.10E-04	4.30E-03
f_7	7.92E+01	4.47E+02	3.54E+02	3.70E+02	7.21E+01
f_8	3.78E+01	3.65E+02	1.52E+02	7.46E+01	1.25E+02
f_9	7.23E-01	1.53E+02	3.08E+01	1.49E+01	3.81E+01
f_{10}	1.18E+04	1.37E+04	1.29E+04	1.29E+04	4.59E+02
f_{11}	2.72E+01	1.80E+02	5.40E+01	4.61E+01	2.93E+01
f_{12}	8.81E+04	1.35E+06	4.15E+05	3.26E+05	2.78E+05
f_{13}	2.96E+01	1.77E+04	1.93E+03	7.26E+02	2.99E+03
f_{14}	1.93E+03	9.87E+04	3.05E+04	2.62E+04	2.25E+04
f_{15}	3.66E+01	1.50E+04	4.34E+03	3.26E+03	4.03E+03
f_{16}	3.67E+02	2.53E+03	8.86E+02	7.24E+02	5.30E+02
f_{17}	2.55E+02	1.91E+03	1.25E+03	1.38E+03	5.12E+02
f_{18}	2.44E+04	2.58E+06	1.15E+06	1.07E+06	5.83E+05
f_{19}	2.58E+03	2.65E+04	1.49E+04	1.51E+04	5.68E+03
f_{20}	4.08E+01	1.95E+03	1.07E+03	1.29E+03	5.28E+02
f_{21}	2.42E+02	5.68E+02	3.34E+02	2.57E+02	1.23E+02
f_{22}	1.00E+02	1.41E+04	7.49E+03	1.26E+04	6.51E+03
f_{23}	4.55E+02	5.28E+02	4.88E+02	4.87E+02	1.89E+01
f_{24}	5.04E+02	8.48E+02	5.66E+02	5.59E+02	4.38E+01
f_{25}	4.61E+02	6.15E+02	5.50E+02	5.61E+02	2.80E+01
f_{26}	3.00E+02	2.96E+03	1.86E+03	1.99E+03	6.58E+02
f_{27}	5.78E+02	7.46E+02	6.50E+02	6.43E+02	4.17E+01
f_{28}	4.59E+02	5.94E+02	4.90E+02	4.97E+02	2.68E+01
f_{29}	3.59E+02	1.11E+03	6.59E+02	6.23E+02	1.80E+02
f_{30}	7.73E+05	1.60E+06	1.10E+06	1.05E+06	2.14E+05

c) Performance of compared swarm algorithms – comparison of final mean error values and their standard deviations

In the following section were highlighted algorithms, which performed significantly better according to the Wilcoxon Rank-Sum test ($p=0.05$) when compared to all the remaining algorithms.

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	BIA		CS		PSO		BAT		FFA	
	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>
f_1	4.07E+04	3.60E+04	2.88E+02	3.25E+02	9.12E+04	3.99E+05	9.92E+06	6.27E+06	8.56E+05	8.51E+05
f_2	5.71E+03	5.91E+03	1.64E+02	1.97E+02	7.56E+03	6.91E+03	1.69E+09	6.18E+08	3.03E+04	4.71E+04
f_3	2.04E+01	6.57E-02	2.02E+01	5.56E-02	2.01E+01	1.17E-01	2.00E+01	8.91E-05	2.00E+01	1.80E-04
f_4	7.25E+00	5.45E+00	1.51E+01	4.93E+00	2.34E+01	8.26E+00	3.37E+01	1.13E+01	1.24E+01	5.35E+00
f_5	1.07E+03	3.12E+02	5.73E+02	1.55E+02	6.17E+02	2.06E+02	8.48E+02	2.93E+02	5.93E+02	2.50E+02
f_6	8.35E+02	1.09E+03	8.66E+01	5.08E+01	1.65E+03	1.98E+03	1.65E+04	2.34E+04	1.17E+04	1.67E+04
f_7	6.06E-01	6.15E-01	1.33E+00	2.61E-01	2.80E+00	1.24E+00	7.87E+00	1.52E+00	1.79E+00	4.58E-01
f_8	5.62E+02	5.39E+02	1.78E+01	1.43E+01	1.41E+03	1.41E+03	3.39E+03	2.57E+03	3.70E+03	6.32E+03
f_9	1.00E+02	4.96E-02	1.00E+02	7.12E-02	1.00E+02	1.77E-01	1.11E+02	3.80E+00	1.00E+02	5.39E-02
f_{10}	5.73E+02	3.89E+02	2.35E+02	1.90E+01	9.04E+02	8.29E+02	7.52E+03	6.27E+03	3.97E+03	3.54E+03
f_{11}	2.22E+02	1.30E+02	2.08E+02	1.36E+02	2.83E+02	7.09E+01	2.04E+02	9.16E+01	3.06E+02	1.01E+02
f_{12}	1.02E+02	5.45E-01	1.03E+02	6.34E-01	1.02E+02	8.94E-01	1.15E+02	5.34E+00	1.02E+02	5.79E-01
f_{13}	3.32E+01	2.88E+00	3.32E+01	2.27E+00	4.00E+01	3.61E+00	4.55E+01	2.51E+00	3.42E+01	3.61E+00
f_{14}	4.72E+03	2.95E+03	2.44E+03	1.09E+03	3.07E+03	3.50E+03	6.95E+03	1.39E+03	1.68E+03	2.28E+03
f_{15}	1.00E+02	0.00E+00	1.00E+02	0.00E+00	1.01E+02	4.20E+00	1.60E+02	1.45E+01	1.00E+02	1.45E-03

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	BIA		CS		PSO		BAT		FFA	
	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>
f_1	2.66E+05	1.91E+05	4.70E+05	3.35E+05	2.89E+06	7.71E+06	3.26E+08	1.83E+08	6.94E+06	3.75E+06
f_2	1.53E+03	1.64E+03	1.42E+03	1.27E+03	3.21E+08	7.54E+08	3.92E+10	9.05E+09	2.94E+04	3.71E+04
f_3	2.10E+01	4.33E-02	2.09E+01	5.74E-02	2.05E+01	3.17E-01	2.00E+01	4.76E-03	2.00E+01	4.03E-04
f_4	7.13E+01	5.71E+01	1.44E+02	2.68E+01	1.41E+02	2.81E+01	2.40E+02	4.68E+01	6.40E+01	1.65E+01
f_5	6.74E+03	2.96E+02	3.53E+03	2.73E+02	3.17E+03	6.46E+02	4.94E+03	1.15E+03	2.79E+03	5.70E+02
f_6	5.25E+04	2.99E+04	5.78E+03	3.43E+03	1.12E+05	8.70E+04	5.99E+06	5.49E+06	3.53E+05	2.88E+05
f_7	9.53E+00	2.45E+00	1.14E+01	1.39E+00	1.49E+01	1.45E+01	2.26E+02	3.80E+01	1.07E+01	1.78E+00
f_8	2.88E+04	1.74E+04	2.04E+03	1.32E+03	3.60E+04	2.66E+04	6.52E+05	7.39E+05	2.17E+05	1.47E+05
f_9	1.05E+02	1.84E+01	1.04E+02	3.26E-01	1.50E+02	9.74E+01	2.91E+02	3.81E+01	1.24E+02	5.56E+01
f_{10}	7.73E+04	5.70E+04	2.06E+03	5.78E+02	1.15E+05	4.54E+05	2.85E+06	2.68E+06	5.26E+05	4.92E+05
f_{11}	4.50E+02	1.22E+02	3.38E+02	1.24E+02	5.97E+02	3.25E+02	8.77E+02	2.58E+02	4.36E+02	2.34E+01
f_{12}	1.05E+02	5.93E-01	1.08E+02	1.00E+00	1.16E+02	1.06E+01	1.72E+02	8.35E+00	1.07E+02	8.59E-01
f_{13}	1.16E+02	3.20E+00	1.24E+02	2.84E+00	1.31E+02	5.85E+00	1.71E+02	1.80E+01	1.26E+02	4.62E+00
f_{14}	3.30E+04	9.27E+02	3.26E+04	1.10E+03	3.80E+04	4.51E+03	6.90E+04	5.25E+03	1.08E+04	1.01E+04
f_{15}	1.00E+02	0.00E+00	1.00E+02	0.00E+00	1.10E+02	8.53E+00	5.61E+03	5.01E+03	1.00E+02	1.09E-03

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	BIA		CS		PSO		BAT		FFA	
	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>
f_1	4.27E+05	2.17E+05	4.33E+06	1.39E+06	6.34E+06	1.14E+07	1.38E+09	6.95E+08	2.60E+07	1.11E+07
f_2	4.74E+03	3.37E+03	8.74E+02	1.61E+03	2.15E+09	1.48E+09	8.35E+10	2.23E+10	8.23E+04	9.54E+04
f_3	2.11E+01	3.10E-02	2.11E+01	5.79E-02	2.09E+01	2.41E-01	2.00E+01	2.16E-02	2.00E+01	4.93E-04
f_4	1.48E+02	1.28E+02	3.33E+02	5.64E+01	3.01E+02	2.79E+01	5.04E+02	8.75E+01	1.32E+02	2.87E+01
f_5	1.26E+04	3.79E+02	6.67E+03	3.61E+02	5.34E+03	8.32E+02	9.32E+03	2.13E+03	5.03E+03	7.76E+02
f_6	1.83E+05	1.66E+05	1.50E+05	8.66E+04	4.87E+05	6.64E+05	2.39E+07	2.50E+07	1.25E+06	7.03E+05
f_7	5.50E+01	3.28E+01	3.54E+01	2.00E+01	3.48E+01	2.26E+01	6.78E+02	1.44E+02	2.39E+01	2.42E+00
f_8	1.11E+05	7.31E+04	2.48E+04	1.36E+04	1.93E+05	2.29E+05	6.39E+06	6.46E+06	7.63E+05	4.85E+05
f_9	1.23E+02	8.05E+01	1.07E+02	5.16E-01	2.51E+02	1.64E+02	5.85E+02	8.29E+01	1.19E+02	5.78E+01
f_{10}	2.04E+04	1.83E+04	2.82E+03	4.40E+02	1.73E+05	5.19E+05	6.58E+06	1.07E+07	1.27E+06	6.69E+05
f_{11}	6.70E+02	6.13E+01	9.90E+02	6.12E+02	1.16E+03	4.07E+02	2.43E+03	3.31E+02	5.27E+02	5.73E+01
f_{12}	1.08E+02	8.29E-01	1.12E+02	1.27E+00	1.73E+02	2.12E+01	2.39E+02	1.26E+01	1.11E+02	1.35E+00
f_{13}	2.17E+02	4.09E+00	2.22E+02	4.39E+00	2.34E+02	7.07E+00	4.18E+02	6.02E+01	2.23E+02	4.79E+00
f_{14}	5.42E+04	1.01E+04	6.23E+04	8.35E+03	9.15E+04	1.98E+04	1.75E+05	1.36E+04	2.72E+04	2.92E+04
f_{15}	1.00E+02	0.00E+00	1.00E+02	1.25E-01	1.08E+02	6.66E+00	1.91E+04	1.89E+04	1.00E+02	1.07E-03

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	BIA		CS		PSO		BAT		FFA	
	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>
f_1	4.78E+02	6.57E+02	7.78E+00	1.24E+01	1.84E+03	2.41E+03	1.65E+09	7.53E+08	2.18E+04	3.07E+04
f_2	9.51E-06	1.25E-05	5.97E-07	5.61E-07	1.45E-05	1.67E-05	3.36E+08	5.23E+08	4.98E+01	8.18E+01
f_3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.34E-14	2.44E-14	7.91E+03	2.47E+03	2.44E-04	1.09E-04
f_4	3.29E-01	2.76E-01	8.99E-02	2.40E-01	7.01E+00	1.63E+01	1.22E+02	5.75E+01	1.78E+00	8.76E-01
f_5	7.27E+00	6.28E+00	1.50E+01	5.27E+00	2.85E+01	9.05E+00	3.13E+01	1.12E+01	1.10E+01	5.48E+00
f_6	1.39E-05	5.92E-05	4.59E-02	6.00E-02	4.31E+00	5.69E+00	2.88E+01	5.66E+00	2.70E-02	2.54E-02
f_7	2.43E+01	8.37E+00	2.70E+01	5.13E+00	2.02E+01	5.26E+00	1.13E+02	4.07E+01	2.11E+01	6.14E+00
f_8	7.89E+00	7.25E+00	1.56E+01	5.50E+00	1.58E+01	7.40E+00	3.30E+01	1.07E+01	1.23E+01	5.47E+00
f_9	1.41E-01	3.79E-01	1.09E+00	6.01E+00	8.92E-15	3.09E-14	4.66E+02	2.31E+02	3.56E-03	1.76E-02
f_{10}	1.08E+03	3.42E+02	6.04E+02	1.48E+02	7.15E+02	2.64E+02	9.58E+02	2.93E+02	6.03E+02	2.84E+02
f_{11}	2.89E+00	2.62E+00	2.75E+00	1.18E+00	2.71E+01	1.37E+01	1.59E+02	6.86E+01	5.21E+01	4.26E+01
f_{12}	1.05E+04	8.57E+03	2.16E+03	1.57E+03	1.43E+04	1.19E+04	4.34E+06	8.66E+06	1.32E+05	1.09E+05
f_{13}	2.98E+03	2.64E+03	1.27E+01	5.79E+00	6.15E+03	4.71E+03	1.61E+04	1.14E+04	4.94E+04	6.61E+04
f_{14}	3.32E+01	7.77E+00	9.03E+00	4.93E+00	5.68E+01	3.94E+01	2.31E+02	1.87E+02	2.61E+02	1.75E+02
f_{15}	2.92E+01	1.90E+01	2.35E+00	1.02E+00	1.24E+02	1.68E+02	2.02E+03	1.51E+03	1.04E+03	9.68E+02
f_{16}	2.31E+01	4.81E+01	5.53E+00	8.08E+00	2.13E+02	1.27E+02	1.68E+02	9.51E+01	5.95E+01	6.38E+01
f_{17}	3.59E+01	2.08E+01	2.75E+01	6.52E+00	5.23E+01	2.55E+01	1.30E+02	2.75E+01	4.95E+01	2.89E+01
f_{18}	3.82E+03	4.03E+03	2.73E+01	6.33E+00	1.04E+04	1.03E+04	1.38E+04	1.08E+04	6.63E+04	6.77E+04
f_{19}	2.36E+01	2.39E+01	2.59E+00	7.53E-01	3.84E+02	6.65E+02	2.48E+03	3.07E+03	2.95E+02	3.51E+02
f_{20}	5.45E+00	1.09E+01	1.65E+01	7.53E+00	9.81E+01	6.12E+01	1.22E+02	3.07E+01	4.72E+01	2.64E+01
f_{21}	1.21E+02	4.12E+01	1.22E+02	4.55E+01	2.22E+02	3.79E+01	1.27E+02	1.32E+01	2.10E+02	2.33E+01
f_{22}	1.02E+02	1.15E+01	8.32E+01	3.01E+01	1.36E+02	2.08E+02	1.83E+02	7.21E+01	1.01E+02	7.48E-01
f_{23}	3.09E+02	5.36E+00	3.17E+02	5.06E+00	3.67E+02	2.81E+01	3.42E+02	3.98E+01	3.16E+02	6.44E+00
f_{24}	3.23E+02	4.21E+01	1.74E+02	9.76E+01	3.25E+02	1.13E+02	2.60E+02	4.17E+01	3.38E+02	3.49E+01
f_{25}	4.36E+02	1.96E+01	3.50E+02	1.10E+02	4.17E+02	5.04E+01	5.26E+02	4.03E+01	4.30E+02	2.18E+01
f_{26}	2.83E+02	5.89E+01	2.21E+02	9.48E+01	3.29E+02	1.84E+02	6.02E+02	9.72E+01	3.65E+02	1.05E+02
f_{27}	3.99E+02	5.29E+00	3.89E+02	9.20E-01	4.32E+02	3.19E+01	4.31E+02	1.27E+01	3.77E+02	2.52E+01
f_{28}	4.54E+02	1.48E+02	2.97E+02	3.52E+01	5.22E+02	1.40E+02	5.11E+02	4.54E+01	4.51E+02	3.66E+01
f_{29}	2.77E+02	2.13E+01	2.80E+02	2.16E+01	3.15E+02	4.77E+01	3.94E+02	3.67E+01	2.79E+02	4.73E+01
f_{30}	1.28E+05	3.13E+05	1.14E+04	3.56E+04	1.78E+05	3.64E+05	1.02E+06	1.54E+06	7.69E+02	1.41E+03

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	BIA		CS		PSO		BAT		FFA	
	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>
f_1	2.15E+03	2.16E+03	1.00E-01	2.58E-01	4.71E+07	2.38E+08	2.88E+10	7.39E+09	2.91E+04	2.22E+04
f_2	1.04E+11	5.38E+11	1.20E+11	5.41E+11	5.42E+23	3.87E+24	1.71E+38	8.27E+38	7.16E+05	4.14E+06
f_3	7.54E+01	6.99E+01	1.46E+03	9.14E+02	2.77E-04	3.56E-04	8.05E+04	1.54E+04	7.80E-03	2.10E-03
f_4	1.11E+01	2.13E+01	4.43E+01	3.59E+01	8.30E+01	2.54E+01	4.40E+03	1.95E+03	2.65E+01	1.35E+01
f_5	7.50E+01	6.12E+01	1.43E+02	2.95E+01	1.45E+02	2.80E+01	2.49E+02	4.33E+01	6.56E+01	1.93E+01
f_6	1.16E-03	6.20E-03	2.60E+01	1.09E+01	3.14E+01	1.09E+01	5.65E+01	6.26E+00	2.48E-01	2.12E-01
f_7	1.83E+02	3.31E+01	2.22E+02	3.87E+01	1.06E+02	2.51E+01	9.06E+02	1.92E+02	9.77E+01	1.93E+01
f_8	4.70E+01	4.79E+01	1.38E+02	2.52E+01	1.09E+02	2.12E+01	1.94E+02	4.00E+01	6.18E+01	2.00E+01
f_9	6.56E+00	7.44E+00	3.36E+03	1.38E+03	2.30E+03	8.13E+02	5.56E+03	1.40E+03	2.35E-01	4.23E-01
f_{10}	6.97E+03	2.67E+02	3.78E+03	2.36E+02	3.18E+03	6.18E+02	5.24E+03	1.22E+03	2.79E+03	5.74E+02
f_{11}	3.20E+01	2.57E+01	8.34E+01	2.50E+01	1.09E+02	3.66E+01	2.50E+03	1.32E+03	7.13E+02	3.67E+02
f_{12}	2.61E+04	1.42E+04	6.66E+04	5.21E+04	2.94E+05	1.36E+06	1.92E+09	1.33E+09	1.09E+07	8.78E+06
f_{13}	1.28E+04	9.36E+03	3.64E+03	3.73E+03	1.88E+05	8.68E+05	7.16E+07	4.56E+08	3.06E+06	3.56E+06
f_{14}	4.89E+03	4.70E+03	9.92E+01	2.37E+01	5.05E+03	5.18E+03	6.38E+04	1.21E+05	1.64E+04	2.09E+04
f_{15}	4.05E+03	4.63E+03	2.45E+02	1.25E+02	7.10E+03	9.35E+03	1.29E+06	5.70E+06	1.59E+06	1.60E+06
f_{16}	9.35E+02	4.53E+02	8.68E+02	2.05E+02	9.36E+02	2.68E+02	1.97E+03	5.29E+02	6.84E+02	2.56E+02
f_{17}	1.25E+02	1.07E+02	2.58E+02	1.07E+02	5.73E+02	1.87E+02	1.06E+03	2.99E+02	5.27E+02	2.08E+02
f_{18}	1.75E+05	1.49E+05	2.83E+04	1.40E+04	1.22E+05	1.01E+05	1.26E+06	1.39E+06	6.98E+05	5.12E+05
f_{19}	6.22E+03	6.72E+03	1.64E+02	1.53E+02	7.91E+03	9.42E+03	7.96E+06	3.23E+07	2.89E+05	1.45E+05
f_{20}	1.99E+02	1.35E+02	3.63E+02	1.19E+02	4.82E+02	1.79E+02	6.81E+02	1.33E+02	4.47E+02	1.54E+02
f_{21}	2.69E+02	5.80E+01	3.18E+02	4.62E+01	3.36E+02	3.04E+01	4.05E+02	5.25E+01	2.61E+02	1.40E+01
f_{22}	1.00E+02	5.84E-01	2.74E+03	1.98E+03	1.10E+03	1.65E+03	4.57E+03	1.01E+03	2.90E+03	7.55E+02
f_{23}	3.81E+02	1.35E+01	4.91E+02	2.92E+01	6.62E+02	8.07E+01	8.15E+02	9.32E+01	4.24E+02	2.32E+01
f_{24}	4.48E+02	1.85E+01	5.56E+02	2.83E+01	7.02E+02	6.64E+01	8.83E+02	9.43E+01	4.96E+02	1.79E+01
f_{25}	3.88E+02	2.07E+00	3.87E+02	5.69E+00	3.92E+02	1.10E+01	1.51E+03	5.72E+02	3.80E+02	3.44E+00
f_{26}	1.18E+03	7.39E+02	1.65E+03	1.05E+03	1.14E+03	1.35E+03	5.54E+03	9.27E+02	1.69E+03	2.29E+02
f_{27}	5.32E+02	1.15E+01	5.22E+02	1.02E+01	6.02E+02	8.58E+01	1.01E+03	1.01E+02	5.00E+02	2.27E-04
f_{28}	3.29E+02	4.76E+01	3.50E+02	5.58E+01	4.22E+02	4.17E+01	2.19E+03	5.23E+02	5.00E+02	2.17E-04
f_{29}	5.85E+02	1.74E+02	8.90E+02	1.10E+02	9.93E+02	2.35E+02	2.33E+03	3.51E+02	9.40E+02	1.77E+02
f_{30}	4.53E+03	1.65E+03	6.49E+03	3.28E+03	5.96E+03	3.51E+03	3.43E+07	5.85E+07	7.64E+05	3.89E+05

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	BIA		CS		PSO		BAT		FFA	
	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>	<i>avg</i>	<i>std</i>
f_1	2.35E+03	2.52E+03	4.24E+03	6.36E+03	5.48E+08	1.06E+09	6.08E+10	1.73E+10	8.23E+04	1.06E+05
f_2	3.65E+26	2.61E+27	6.96E+36	4.97E+37	3.80E+47	2.71E+48	6.74E+71	2.83E+72	1.10E+15	7.85E+15
f_3	1.16E+04	3.16E+03	2.72E+04	5.91E+03	7.59E+00	4.40E+00	1.55E+05	2.74E+04	3.04E-02	6.55E-03
f_4	6.50E+01	5.03E+01	7.80E+01	4.83E+01	1.65E+02	1.07E+02	1.22E+04	5.14E+03	4.94E+01	1.70E+01
f_5	1.42E+02	1.19E+02	3.15E+02	4.04E+01	2.52E+02	3.18E+01	4.36E+02	6.30E+01	1.33E+02	3.33E+01
f_6	2.32E-03	4.30E-03	4.64E+01	9.61E+00	4.28E+01	6.44E+00	6.54E+01	6.12E+00	6.16E-01	5.56E-01
f_7	3.54E+02	7.21E+01	5.49E+02	7.60E+01	2.04E+02	4.08E+01	1.81E+03	3.38E+02	1.86E+02	3.40E+01
f_8	1.52E+02	1.25E+02	3.22E+02	3.85E+01	2.57E+02	3.50E+01	4.60E+02	7.20E+01	1.23E+02	2.65E+01
f_9	3.08E+01	3.81E+01	1.31E+04	3.78E+03	8.47E+03	1.44E+03	1.56E+04	3.90E+03	2.89E+02	2.04E+03
f_{10}	1.29E+04	4.59E+02	6.93E+03	3.88E+02	5.67E+03	8.69E+02	9.87E+03	2.09E+03	5.19E+03	1.03E+03
f_{11}	5.40E+01	2.93E+01	1.88E+02	3.77E+01	1.64E+02	3.55E+01	8.89E+03	4.29E+03	1.62E+03	5.35E+02
f_{12}	4.15E+05	2.78E+05	6.58E+05	6.63E+05	9.27E+07	3.53E+08	1.33E+10	8.91E+09	5.23E+07	3.43E+07
f_{13}	1.93E+03	2.99E+03	7.51E+03	6.44E+03	1.88E+05	1.30E+06	9.03E+08	2.37E+09	4.30E+06	4.31E+06
f_{14}	3.05E+04	2.25E+04	3.28E+02	8.58E+01	5.00E+04	6.81E+04	1.19E+06	1.79E+06	1.27E+05	1.06E+05
f_{15}	4.34E+03	4.03E+03	1.46E+03	9.94E+02	7.27E+03	6.32E+03	1.50E+08	5.33E+08	3.42E+06	3.79E+06
f_{16}	8.86E+02	5.30E+02	1.83E+03	2.16E+02	1.46E+03	3.23E+02	3.81E+03	1.22E+03	1.43E+03	4.06E+02
f_{17}	1.25E+03	5.12E+02	1.24E+03	1.80E+02	1.20E+03	3.06E+02	4.03E+03	1.08E+03	2.02E+03	6.38E+02
f_{18}	1.15E+06	5.83E+05	1.02E+05	4.47E+04	2.58E+05	1.85E+05	5.11E+06	1.01E+07	1.24E+06	8.32E+05
f_{19}	1.49E+04	5.68E+03	2.41E+03	2.09E+03	1.44E+04	9.25E+03	8.93E+07	3.09E+08	8.54E+05	1.97E+05
f_{20}	1.07E+03	5.28E+02	1.12E+03	2.27E+02	9.38E+02	3.17E+02	1.62E+03	3.03E+02	1.10E+03	2.60E+02
f_{21}	3.34E+02	1.23E+02	4.78E+02	3.76E+01	4.82E+02	4.74E+01	7.07E+02	9.47E+01	3.32E+02	2.45E+01
f_{22}	7.49E+03	6.51E+03	7.53E+03	4.27E+02	6.68E+03	8.09E+02	9.74E+03	1.97E+03	5.26E+03	9.38E+02
f_{23}	4.88E+02	1.89E+01	7.75E+02	5.34E+01	1.02E+03	1.28E+02	1.51E+03	1.64E+02	5.70E+02	2.85E+01
f_{24}	5.66E+02	4.38E+01	8.44E+02	6.21E+01	1.06E+03	1.26E+02	1.68E+03	1.64E+02	6.51E+02	4.16E+01
f_{25}	5.50E+02	2.80E+01	5.32E+02	5.01E+01	5.50E+02	3.34E+01	6.17E+03	2.53E+03	4.33E+02	1.11E+01
f_{26}	1.86E+03	6.58E+02	4.74E+03	8.96E+02	3.08E+03	2.86E+03	1.23E+04	1.83E+03	2.80E+03	3.55E+02
f_{27}	6.50E+02	4.17E+01	7.22E+02	9.16E+01	8.83E+02	1.74E+02	2.53E+03	2.96E+02	5.00E+02	2.89E-04
f_{28}	4.90E+02	2.68E+01	4.92E+02	2.66E+01	5.84E+02	1.87E+02	5.87E+03	1.65E+03	5.00E+02	2.71E-04
f_{29}	6.59E+02	1.80E+02	1.50E+03	2.09E+02	1.64E+03	3.69E+02	7.26E+03	1.67E+03	1.94E+03	4.79E+02
f_{30}	1.10E+06	2.14E+05	6.61E+05	9.03E+04	8.86E+05	3.85E+05	3.97E+08	5.56E+08	3.04E+06	2.05E+06

d) Mean diversity values of compared swarm algorithms

In the following section were highlighted maximal diversity values.

CEC 2015 10 D

	<i>BIA</i>	<i>CS</i>	<i>PSO</i>	<i>BAT</i>	<i>FFA</i>
f_1	108.88	15.59	6.55	0.04	0.03
f_2	96.66	9.75	0.15	0.04	0.03
f_3	152.64	203.72	13.51	0.81	0.03
f_4	89.58	87.56	1.39	0.02	0.03
f_5	131.51	191.78	9.21	0.02	0.03
f_6	102.31	117.73	2.37	0.02	0.03
f_7	89.70	117.98	4.38	8.92	0.03
f_8	107.99	106.10	10.69	1.01	0.03
f_9	105.05	24.92	5.34	0.04	0.03
f_{10}	111.17	43.49	4.67	0.02	0.03
f_{11}	97.38	23.14	11.59	1.99	0.03
f_{12}	96.34	35.18	4.54	1.67	0.03
f_{13}	113.60	87.42	7.25	0.03	0.03
f_{14}	106.88	119.63	14.76	0.03	0.03
f_{15}	89.85	0.00	0.03	0.28	0.03

CEC 2015 30 D

	BIA	CS	PSO	BAT	FFA
<i>f</i> ₁	180.56	66.71	18.33	0.04	0.05
<i>f</i> ₂	175.58	8.89	0.03	0.04	0.05
<i>f</i> ₃	256.59	357.59	17.27	0.02	0.05
<i>f</i> ₄	166.59	168.40	0.00	0.02	0.05
<i>f</i> ₅	231.88	332.86	9.88	1.35	0.05
<i>f</i> ₆	189.78	145.20	15.29	0.04	0.05
<i>f</i> ₇	168.12	123.62	6.61	13.93	0.05
<i>f</i> ₈	186.70	128.44	31.00	0.04	0.05
<i>f</i> ₉	177.96	18.49	2.26	0.04	0.05
<i>f</i> ₁₀	207.21	116.91	13.64	0.04	0.05
<i>f</i> ₁₁	176.86	248.91	2.71	14.93	0.05
<i>f</i> ₁₂	176.68	41.40	4.87	0.04	0.05
<i>f</i> ₁₃	198.76	215.19	13.56	0.04	0.05
<i>f</i> ₁₄	192.39	149.86	0.07	0.04	0.05
<i>f</i> ₁₅	175.79	0.00	0.98	0.04	0.05

CEC 2015 50 D

	BIA	CS	PSO	BAT	FFA
<i>f</i> ₁	229.26	96.98	18.69	0.05	0.07
<i>f</i> ₂	227.02	10.47	0.04	0.05	0.07
<i>f</i> ₃	322.93	470.33	20.99	0.02	0.07
<i>f</i> ₄	215.66	209.84	0.00	0.02	0.07
<i>f</i> ₅	287.12	428.72	3.79	0.04	0.07
<i>f</i> ₆	249.01	234.27	31.96	0.05	0.07
<i>f</i> ₇	213.90	100.98	3.26	0.04	0.07
<i>f</i> ₈	262.91	194.66	39.47	0.04	0.07
<i>f</i> ₉	232.94	19.57	0.00	0.04	0.06
<i>f</i> ₁₀	261.00	159.64	39.78	0.04	0.07
<i>f</i> ₁₁	220.65	337.24	1.25	197.30	0.07
<i>f</i> ₁₂	239.21	45.82	0.26	0.05	0.06
<i>f</i> ₁₃	262.64	243.51	4.34	0.04	0.07
<i>f</i> ₁₄	271.20	73.10	0.04	0.04	0.07
<i>f</i> ₁₅	241.54	0.00	1.65	0.05	0.07

CEC 2017 10 D

	<i>BIA</i>	<i>CS</i>	<i>PSO</i>	<i>BAT</i>	<i>FFA</i>
f_1	102.81	2.36	0.21	0.04	0.03
f_2	111.59	0.19	0.22	0.03	0.03
f_3	92.88	0.00	0.00	0.50	0.03
f_4	103.04	22.99	7.15	0.04	0.03
f_5	102.07	85.17	0.33	0.02	0.03
f_6	102.27	0.60	0.01	0.02	0.03
f_7	85.45	35.36	2.84	0.02	0.03
f_8	91.38	89.34	0.96	0.03	0.03
f_9	87.60	1.75	0.00	0.02	0.03
f_{10}	131.37	192.31	10.90	0.02	0.03
f_{11}	97.01	37.35	4.17	0.03	0.03
f_{12}	93.28	94.73	2.10	0.03	0.03
f_{13}	104.15	54.43	9.04	1.38	0.03
f_{14}	117.15	109.68	4.74	99.64	0.03
f_{15}	111.59	33.60	7.15	78.13	0.03
f_{16}	106.33	117.87	8.70	0.03	0.03
f_{17}	102.16	127.72	10.64	30.03	0.03
f_{18}	111.58	69.35	14.40	0.03	0.03
f_{19}	114.94	94.71	6.57	63.19	0.03
f_{20}	103.60	120.86	13.96	11.60	0.03
f_{21}	108.92	103.86	7.14	0.04	0.03
f_{22}	96.33	30.72	3.81	0.03	0.03
f_{23}	114.64	86.37	1.07	0.03	0.03
f_{24}	114.48	126.02	3.48	0.04	0.03
f_{25}	97.80	40.77	0.23	0.04	0.03
f_{26}	103.72	46.49	2.60	0.03	0.03
f_{27}	119.46	31.29	0.78	0.03	0.03
f_{28}	118.33	42.15	0.00	0.04	0.03
f_{29}	105.71	176.19	3.78	17.06	0.03
f_{30}	126.00	111.73	4.11	0.03	0.03

CEC 2017 30 D

	BIA	CS	PSO	BAT	FFA
f_1	166.09	0.02	0.33	0.04	0.05
f_2	189.65	11.38	17.99	0.04	0.05
f_3	178.97	16.75	0.06	0.04	0.05
f_4	181.33	38.18	6.99	0.04	0.05
f_5	168.13	169.32	0.07	0.02	0.05
f_6	178.95	133.13	1.33	0.03	0.05
f_7	151.73	56.24	3.09	0.02	0.05
f_8	161.14	187.36	0.10	0.02	0.05
f_9	163.38	170.64	7.85	0.02	0.05
f_{10}	234.42	336.37	7.10	0.03	0.05
f_{11}	166.51	100.13	2.64	0.04	0.05
f_{12}	181.50	128.25	5.51	0.04	0.05
f_{13}	174.67	77.58	1.90	0.03	0.05
f_{14}	191.17	166.76	15.82	0.03	0.05
f_{15}	165.60	61.00	3.00	0.03	0.05
f_{16}	193.05	243.63	1.78	0.04	0.05
f_{17}	178.40	250.16	0.85	0.03	0.05
f_{18}	193.76	187.04	17.32	0.04	0.05
f_{19}	166.73	108.53	4.51	0.04	0.05
f_{20}	193.14	290.28	8.88	0.03	0.05
f_{21}	174.38	199.77	0.00	0.03	0.05
f_{22}	168.36	220.81	2.65	0.04	0.05
f_{23}	187.00	164.04	0.10	1.81	0.05
f_{24}	189.88	170.02	0.00	0.03	0.05
f_{25}	175.59	6.80	0.01	0.04	0.05
f_{26}	174.10	168.22	0.05	0.04	0.05
f_{27}	208.98	200.48	0.12	0.04	0.05
f_{28}	177.59	22.45	9.75	0.04	0.05
f_{29}	190.20	282.88	0.51	0.03	0.05
f_{30}	220.63	122.77	3.58	0.04	0.05

CEC 2017 50 D

	<i>BIA</i>	<i>CS</i>	<i>PSO</i>	<i>BAT</i>	<i>FFA</i>
f_1	217.89	1.22	0.01	0.05	0.07
f_2	233.17	18.72	25.51	0.05	0.07
f_3	245.44	77.59	3.03	0.05	0.06
f_4	240.90	7.21	11.45	0.05	0.07
f_5	214.05	222.05	0.00	0.02	0.07
f_6	229.65	240.78	3.89	0.03	0.06
f_7	195.22	69.23	3.30	0.02	0.07
f_8	215.73	222.13	0.00	0.02	0.07
f_9	225.02	240.74	9.90	0.03	0.07
f_{10}	289.79	430.74	8.70	0.04	0.07
f_{11}	221.89	104.84	3.53	0.05	0.07
f_{12}	237.60	145.01	11.60	0.05	0.07
f_{13}	234.58	107.08	2.95	0.04	0.07
f_{14}	258.49	159.24	38.36	0.04	0.06
f_{15}	221.15	106.78	4.46	0.04	0.07
f_{16}	234.59	300.78	2.99	1.66	0.06
f_{17}	241.54	286.94	1.09	0.03	0.07
f_{18}	259.89	261.17	28.28	0.04	0.06
f_{19}	212.32	164.40	3.29	0.04	0.07
f_{20}	263.64	398.34	13.38	0.03	0.06
f_{21}	220.97	236.33	0.00	0.03	0.07
f_{22}	257.46	436.16	5.38	0.04	0.07
f_{23}	235.75	219.58	0.06	0.04	0.07
f_{24}	241.45	222.01	0.21	0.04	0.07
f_{25}	234.64	2.82	5.26	0.05	0.06
f_{26}	229.98	174.01	1.18	0.04	0.06
f_{27}	274.73	293.34	0.15	0.05	0.06
f_{28}	272.99	0.12	11.12	0.05	0.06
f_{29}	243.27	306.01	1.58	0.04	0.07
f_{30}	303.05	54.50	2.19	0.05	0.07