COMP SCI 5401 FS2017 Assignment 1b

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Average vs Best Fitness

As can be seen from Figure

Table 1: Figure 1 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1001
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Figure 1: Input 1

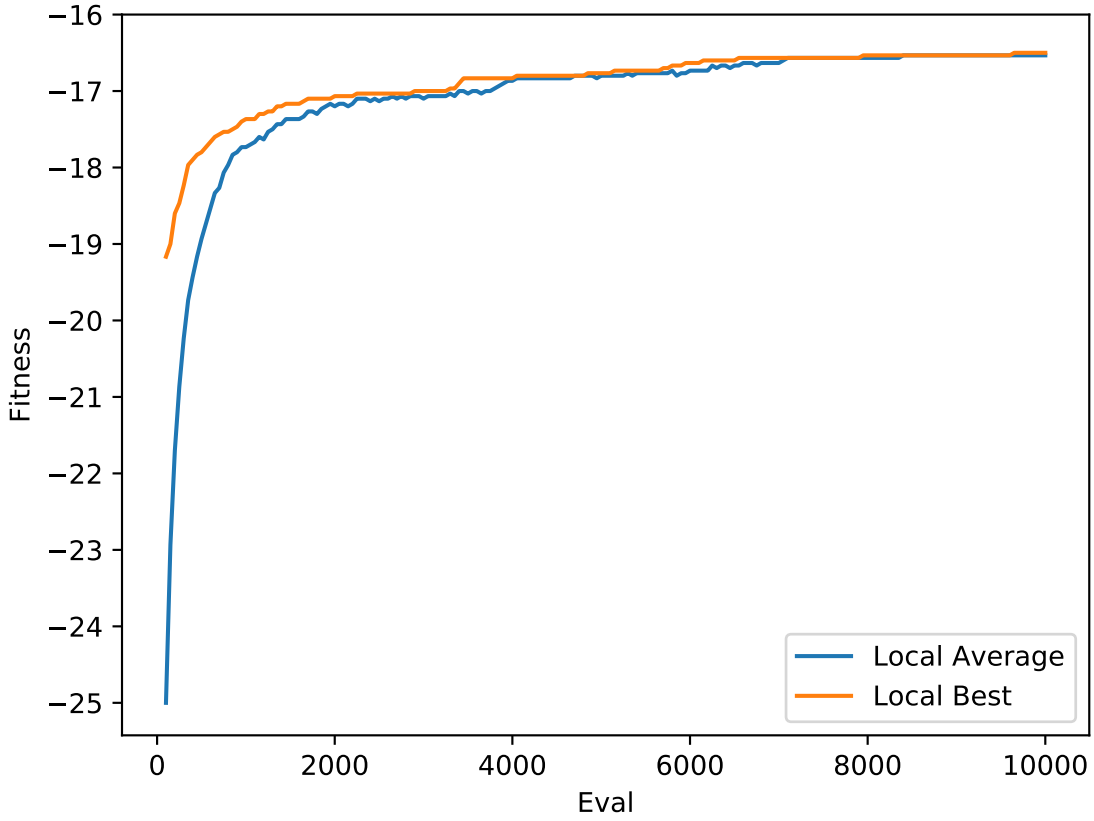

Table 2: Figure 2 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1002
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Table 3: Figure 3 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1003
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 2: Input 1

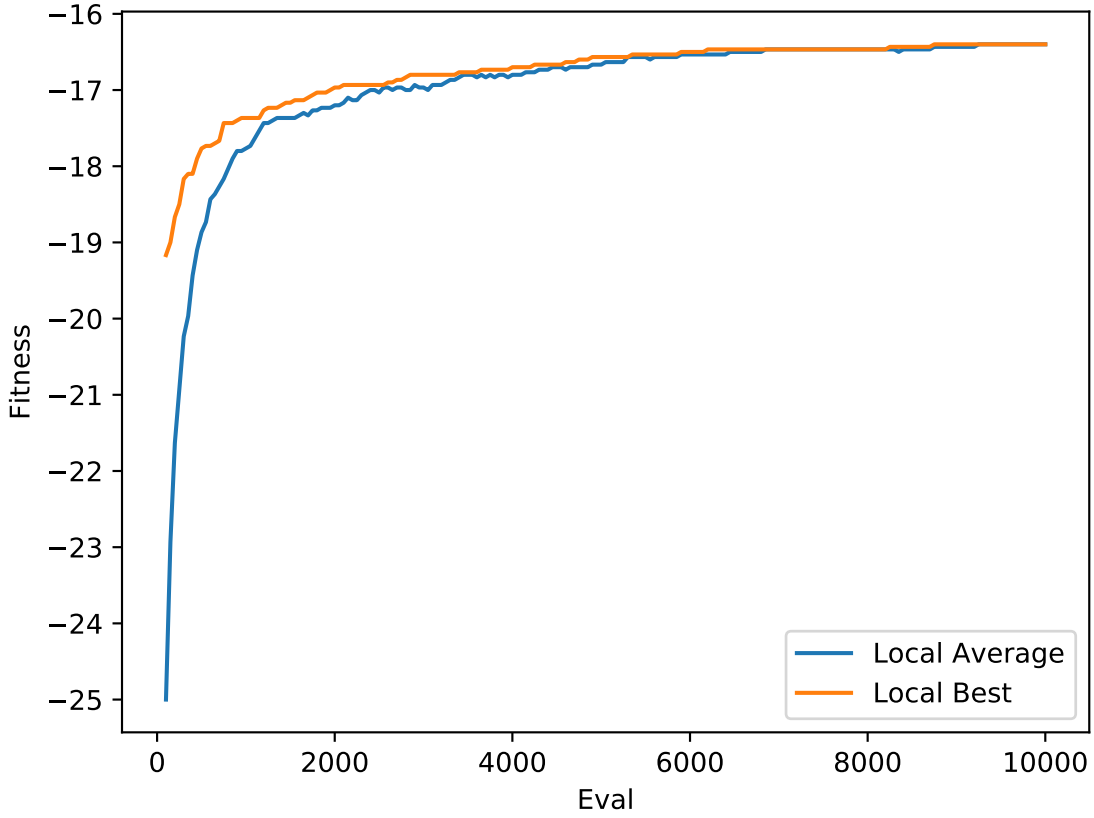

Figure 3: Input 1

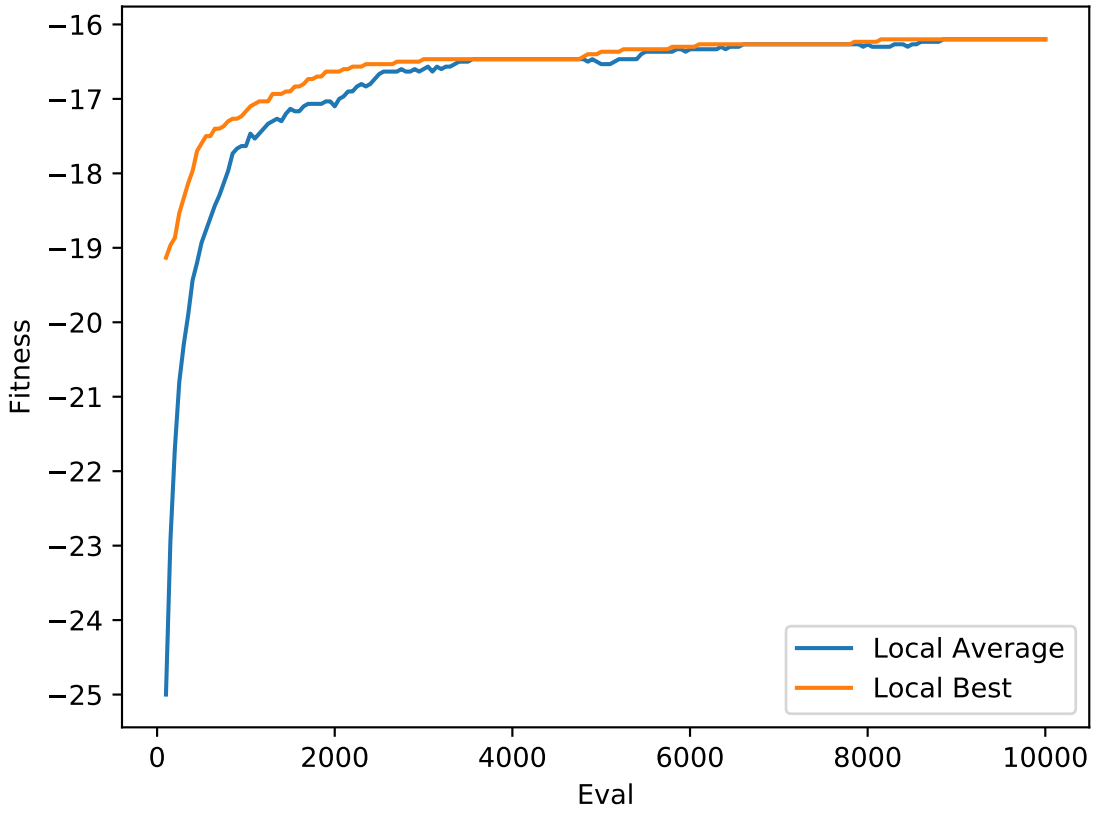

Table 4: Figure 4 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1004
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Table 5: Figure 5 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1005
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Figure 4: Input 1

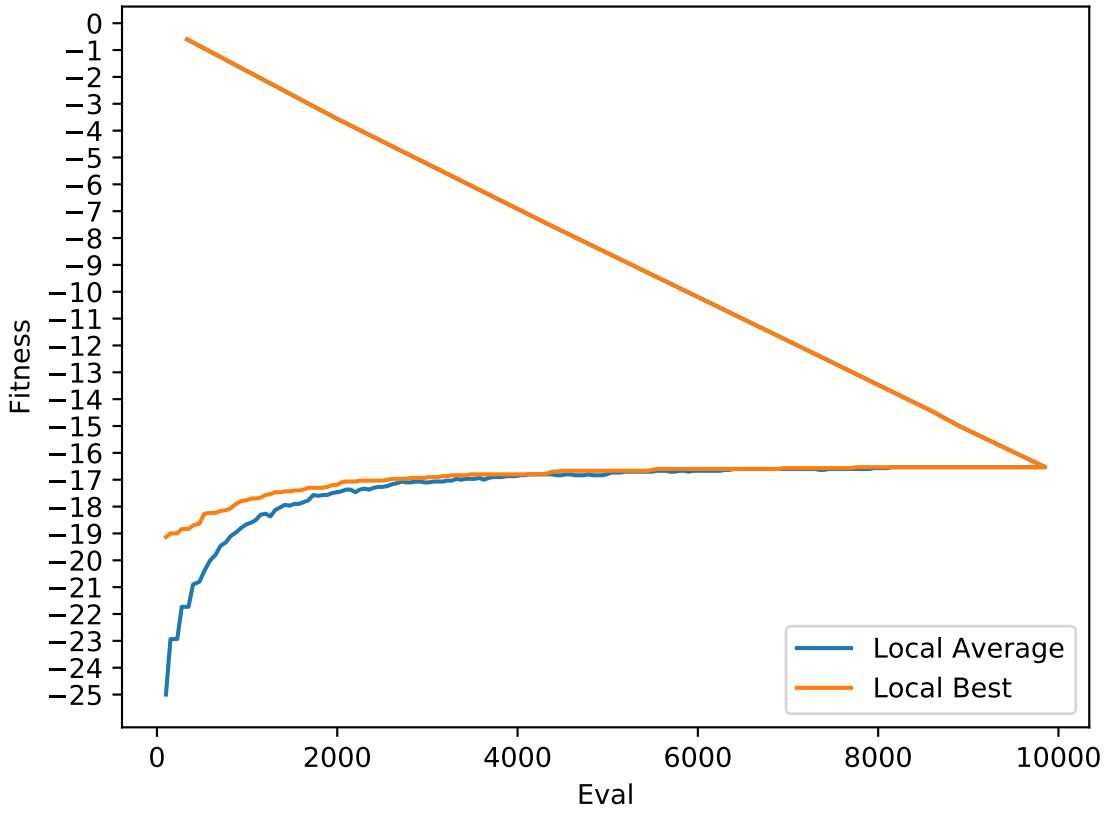

Figure 5: Input 1

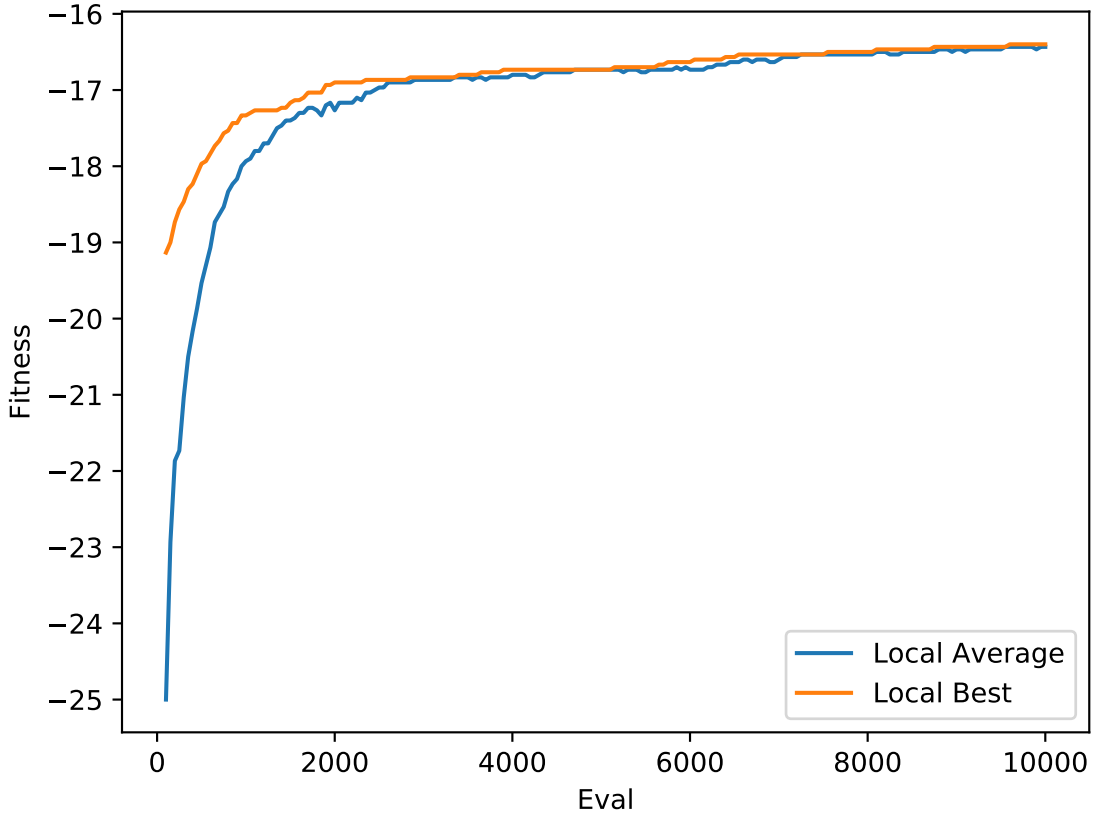

Table 6: Figure 6 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1006
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Table 7: Figure 7 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1007
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 6: Input 1

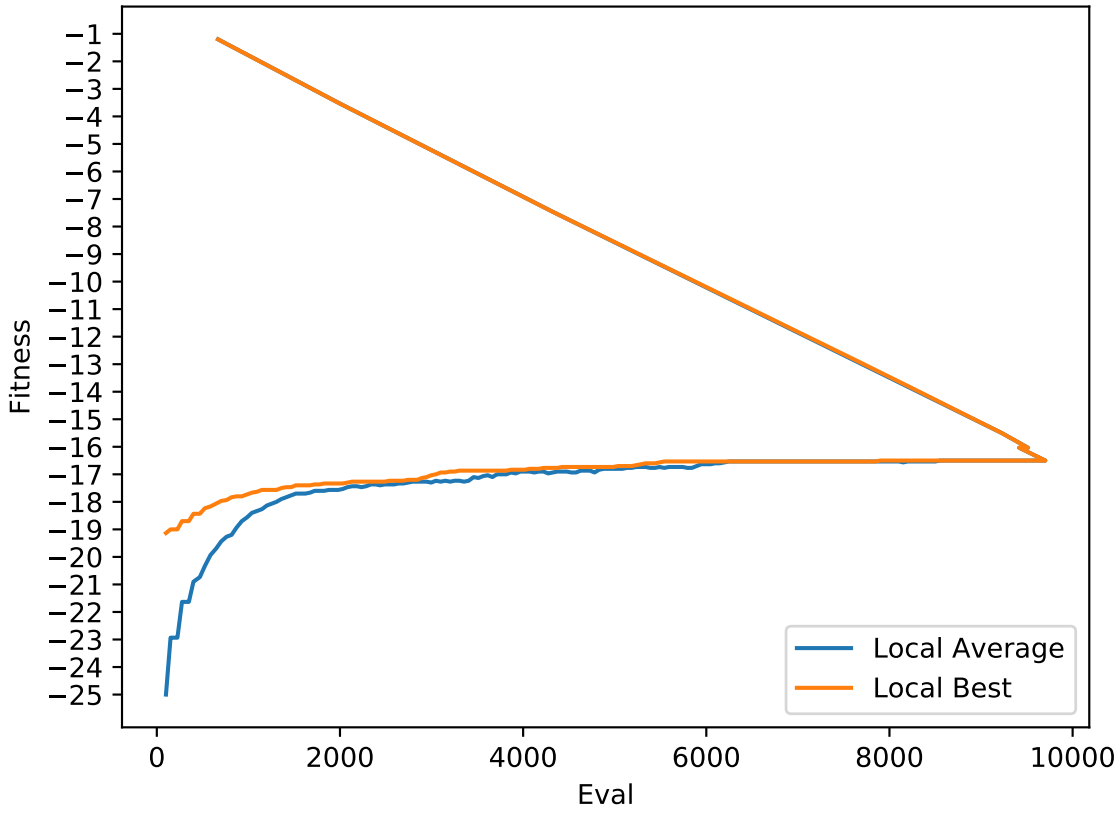

Figure 7: Input 1

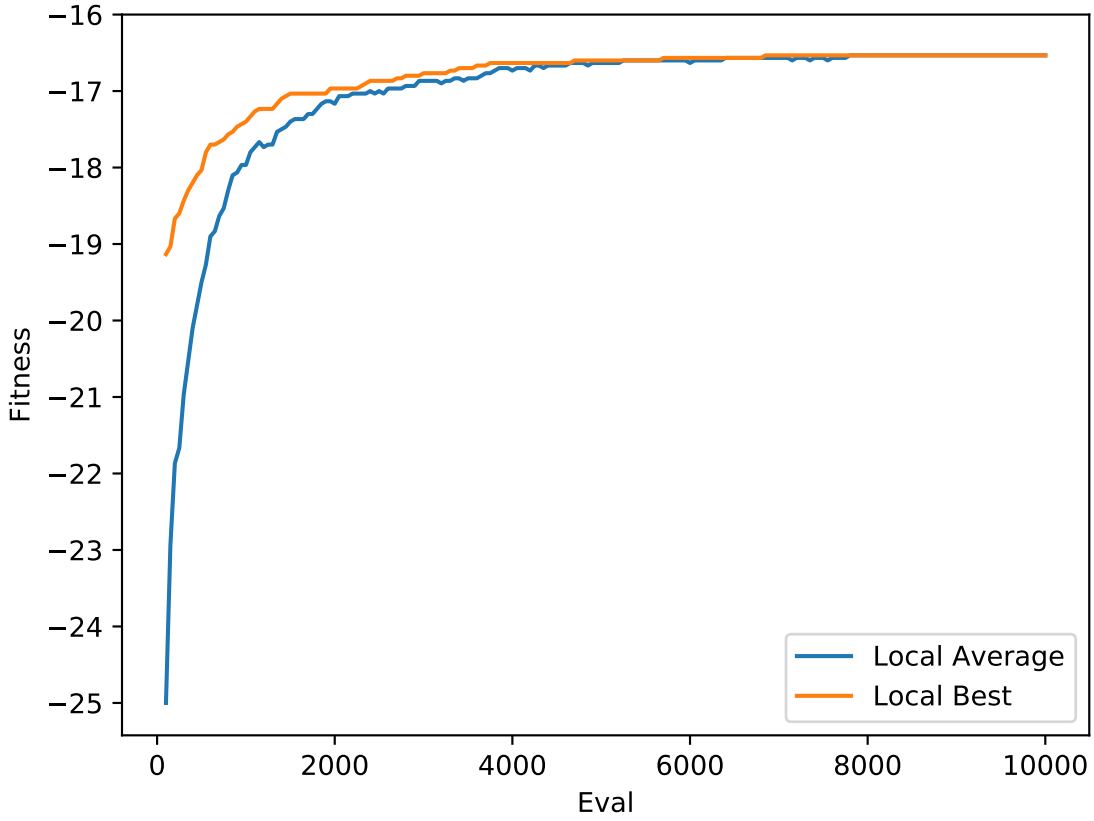

Table 8: Figure 8 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1008
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Table 9: Figure 9 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1009
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Figure 8: Input 1

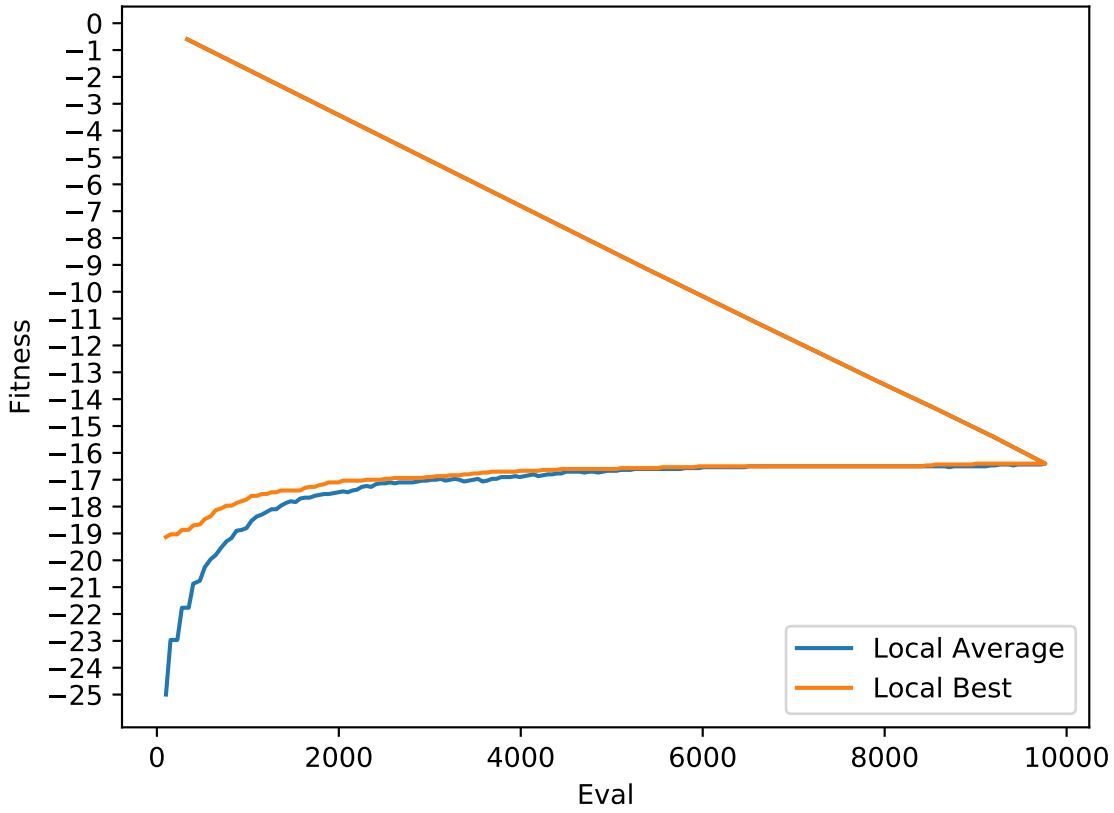

Figure 9: Input 1

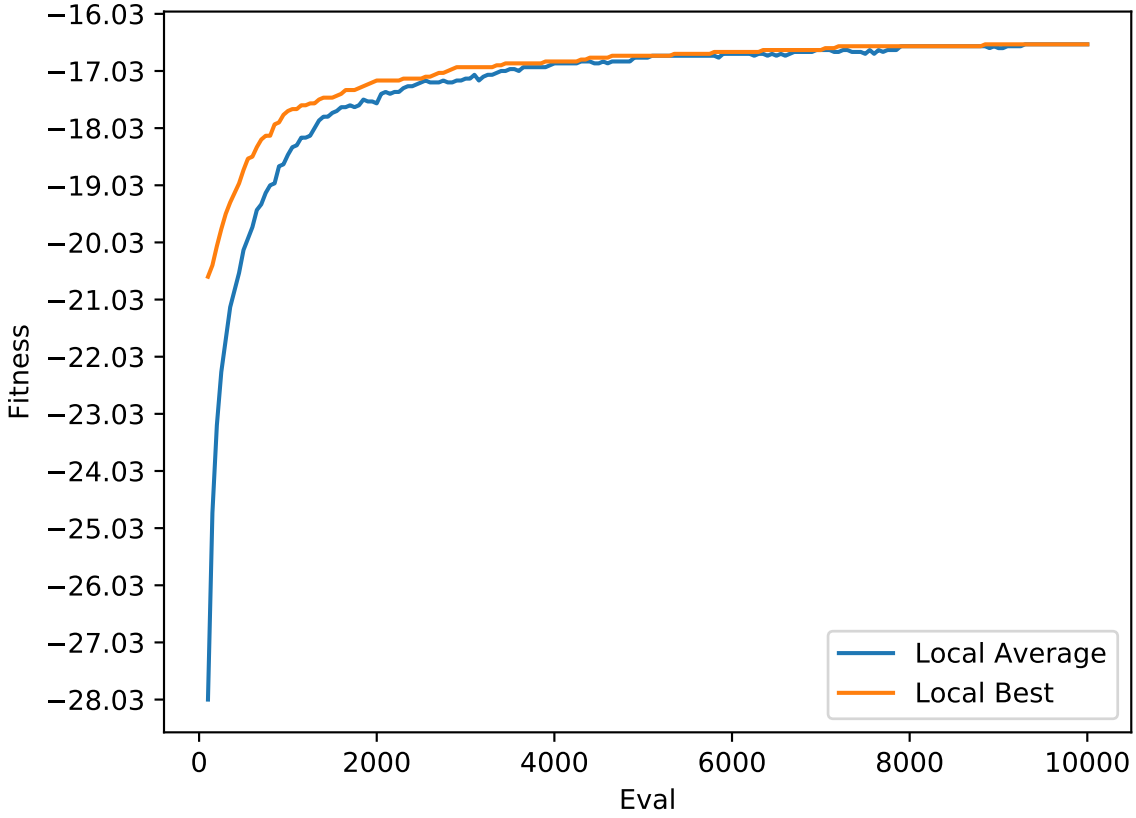

Table 10: Figure 10 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1010
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Table 11: Figure 11 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1011
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 10: Input 1

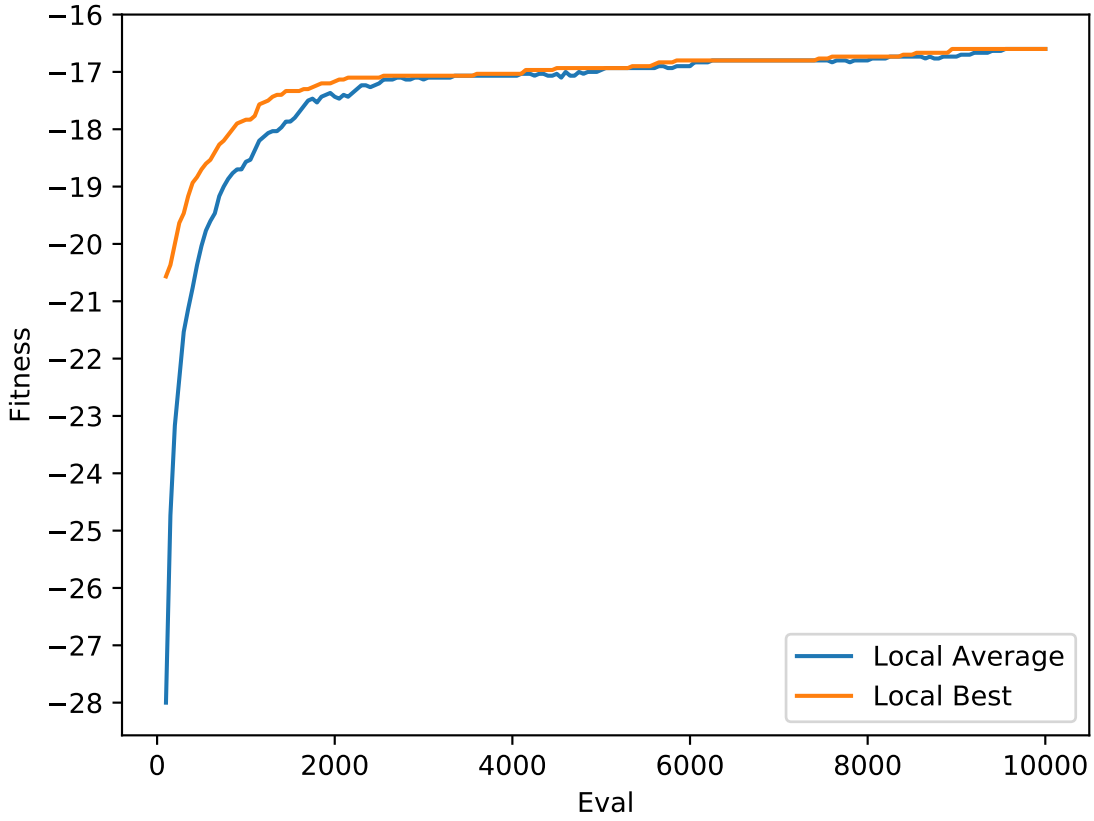

Figure 11: Input 1

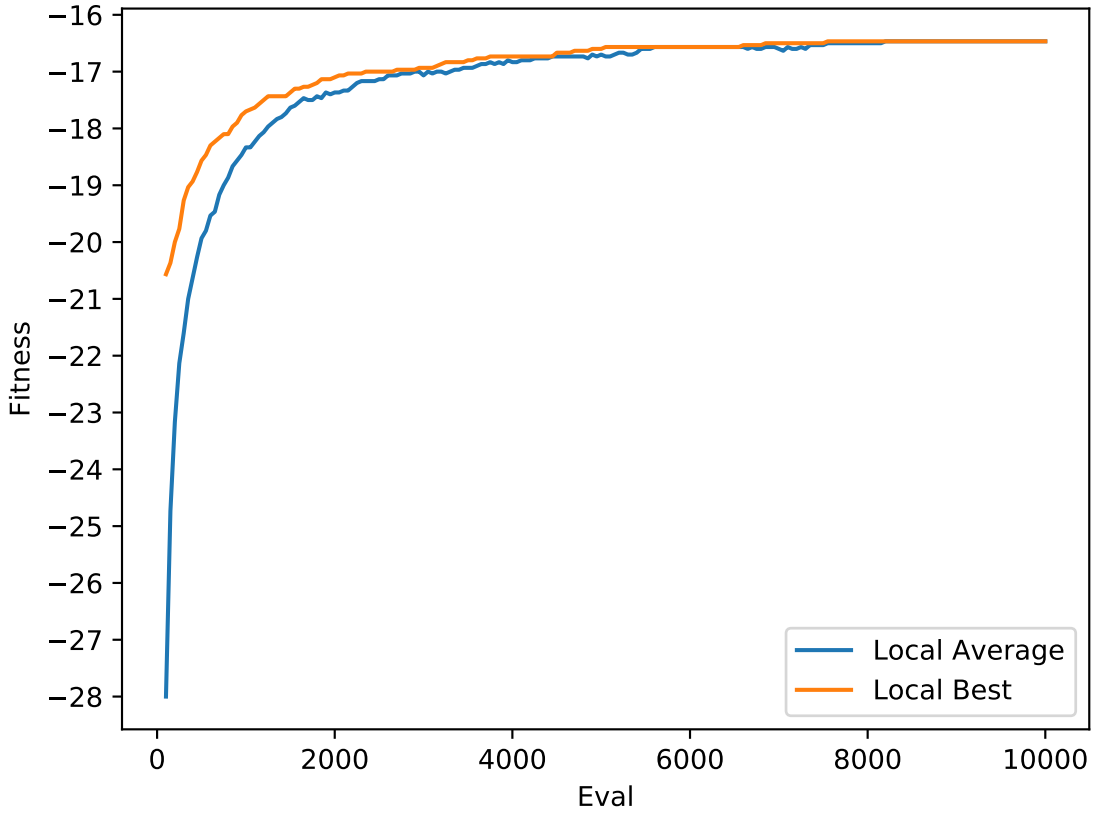

Table 12: Figure 12 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1012
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Table 13: Figure 13 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1013
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Figure 12: Input 1

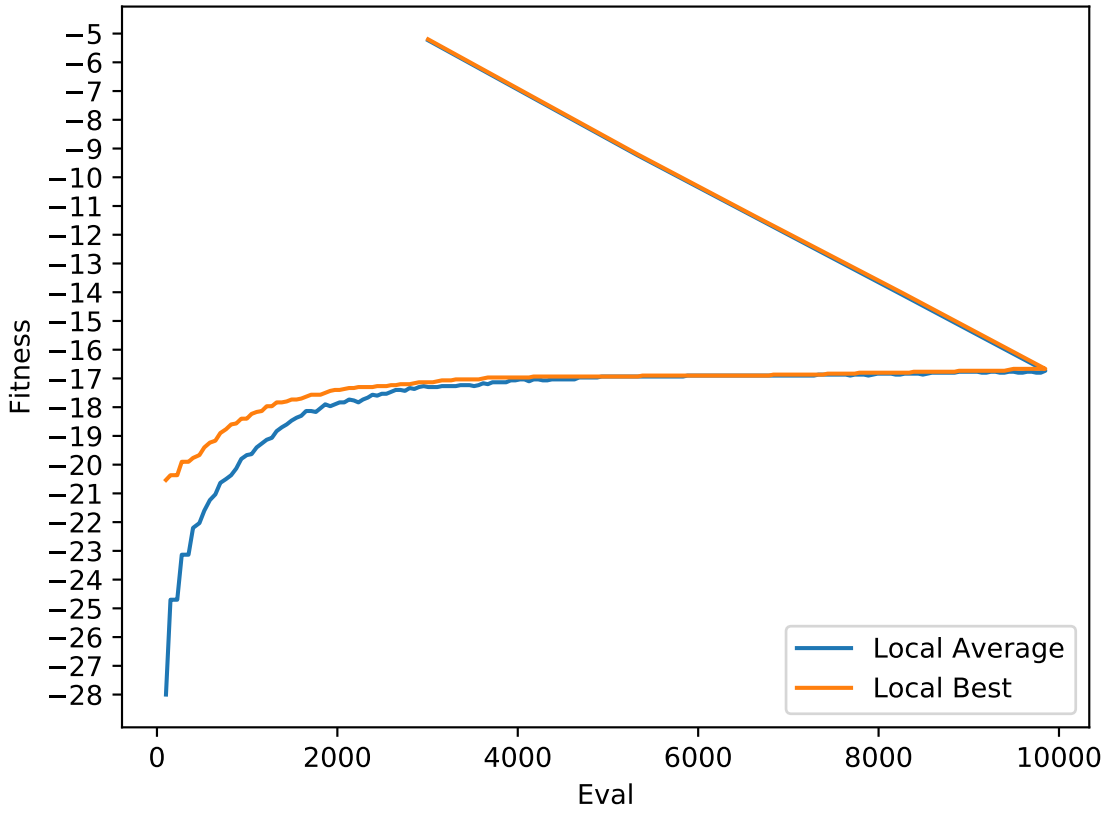

Figure 13: Input 1

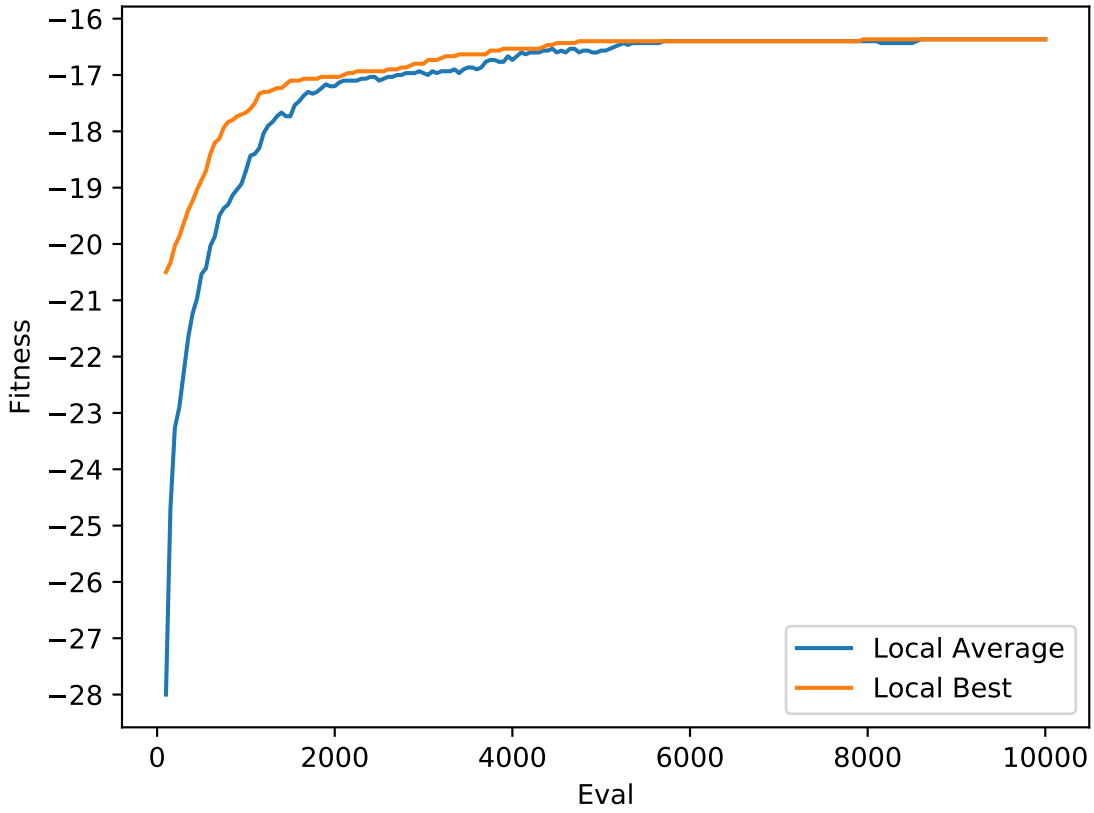

Table 14: Figure 14 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1014
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Table 15: Figure 15 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1015
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 14: Input 1

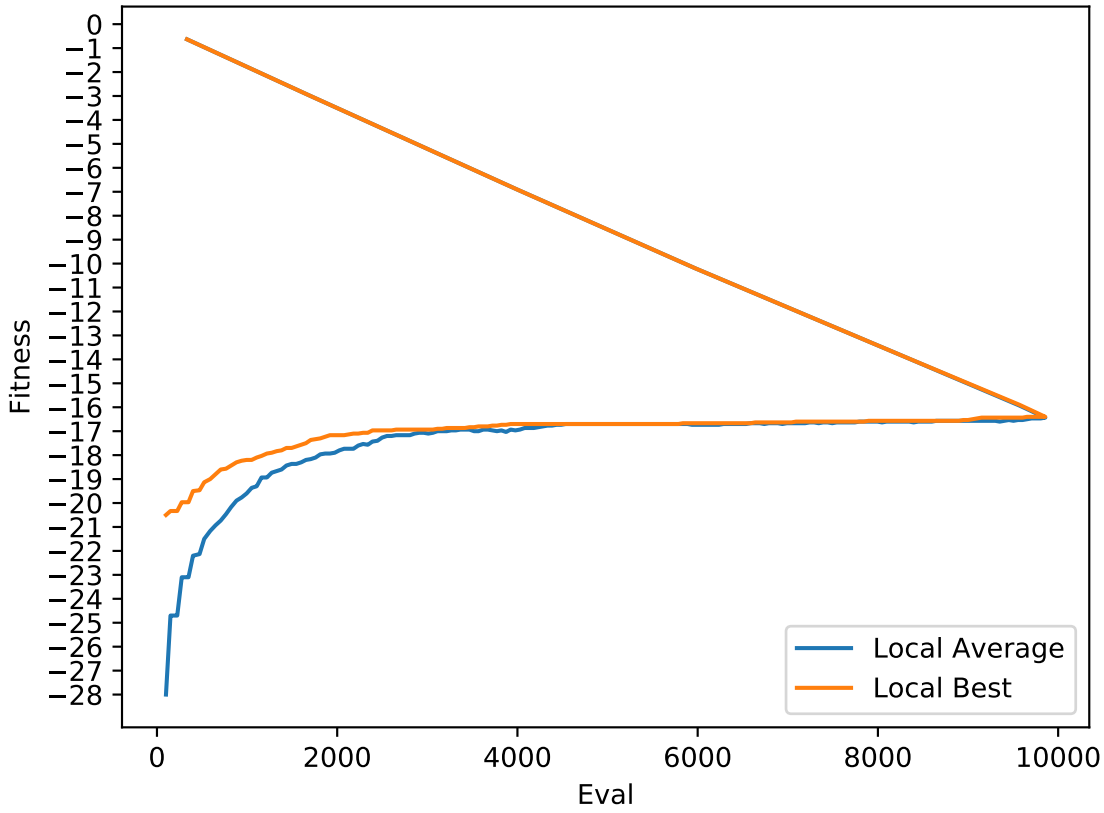

Figure 15: Input 1

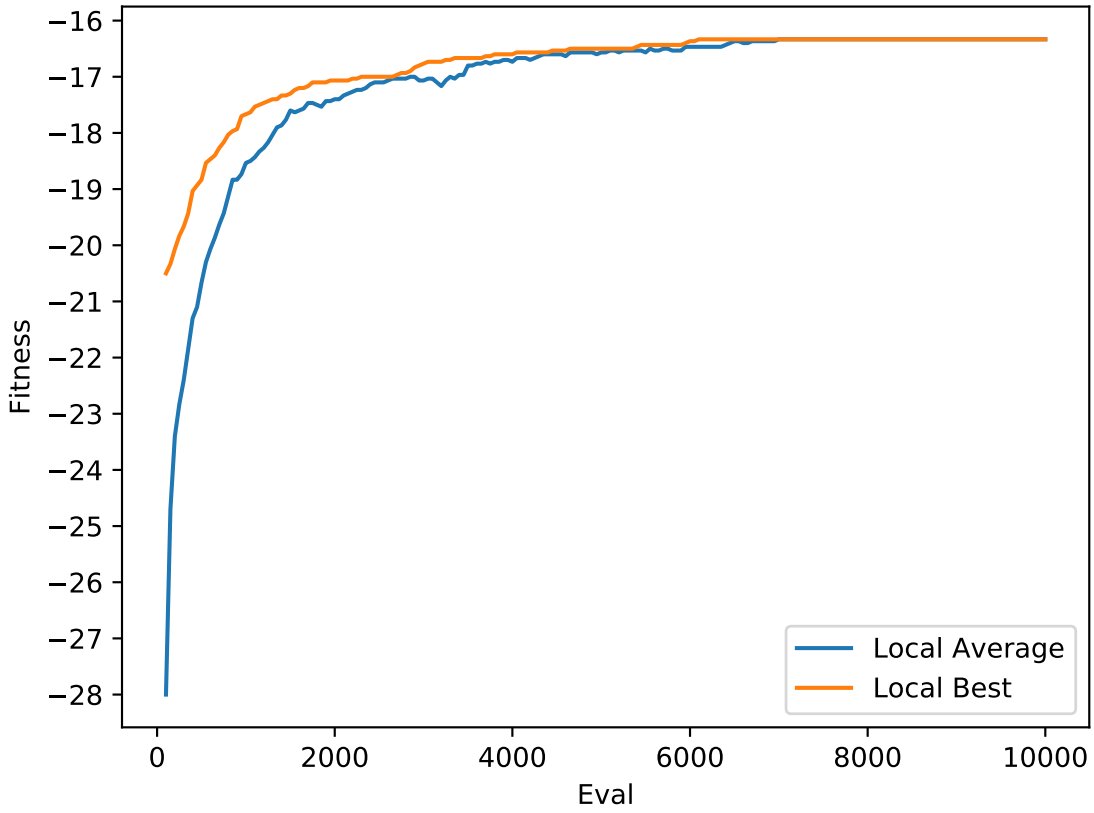

Table 16: Figure 16 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1016
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Repair
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Table 17: Figure 17 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1017
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Figure 16: Input 1

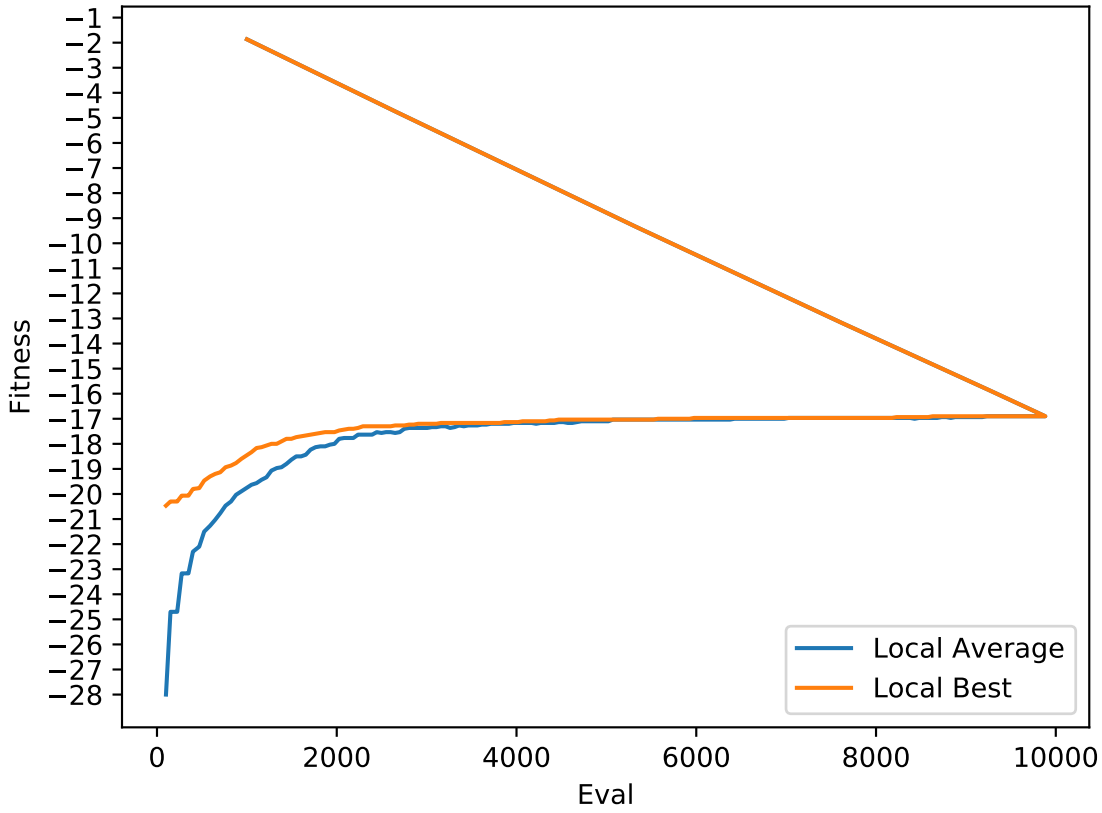

Figure 17: Input 1

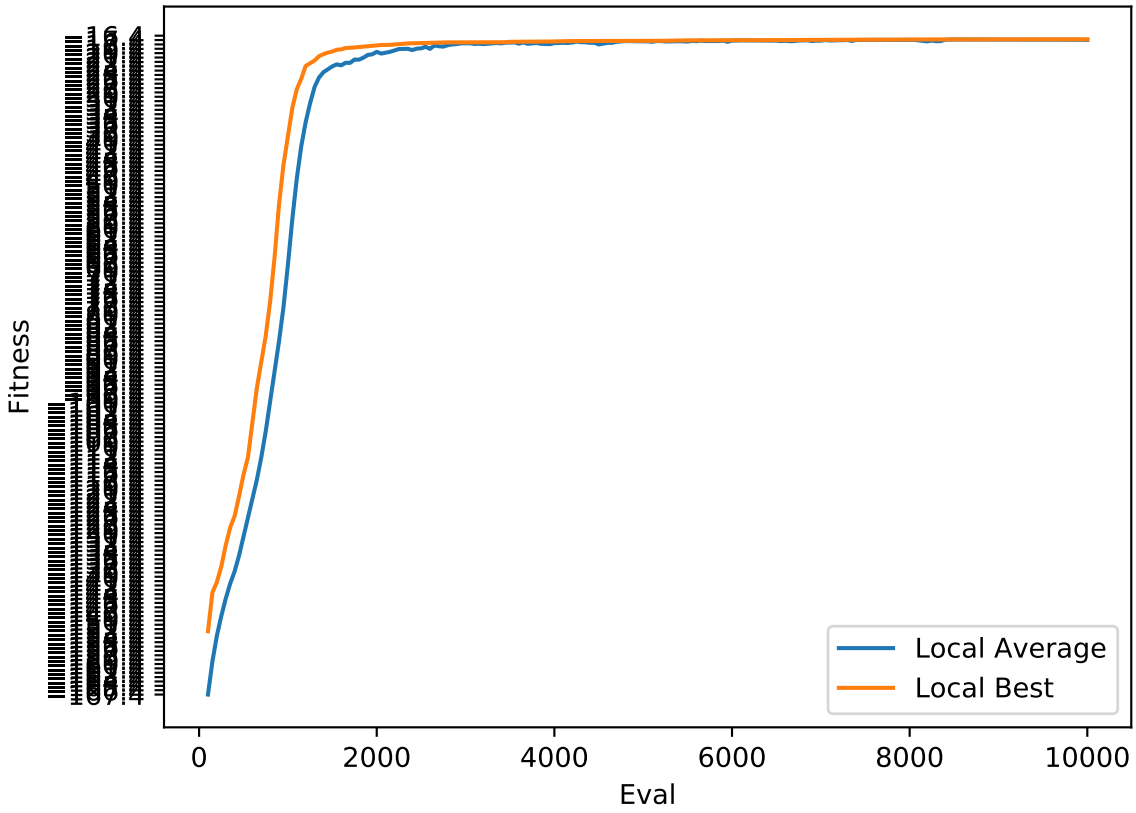

Table 18: Figure 18 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1018
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Table 19: Figure 19 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1019
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 18: Input 1

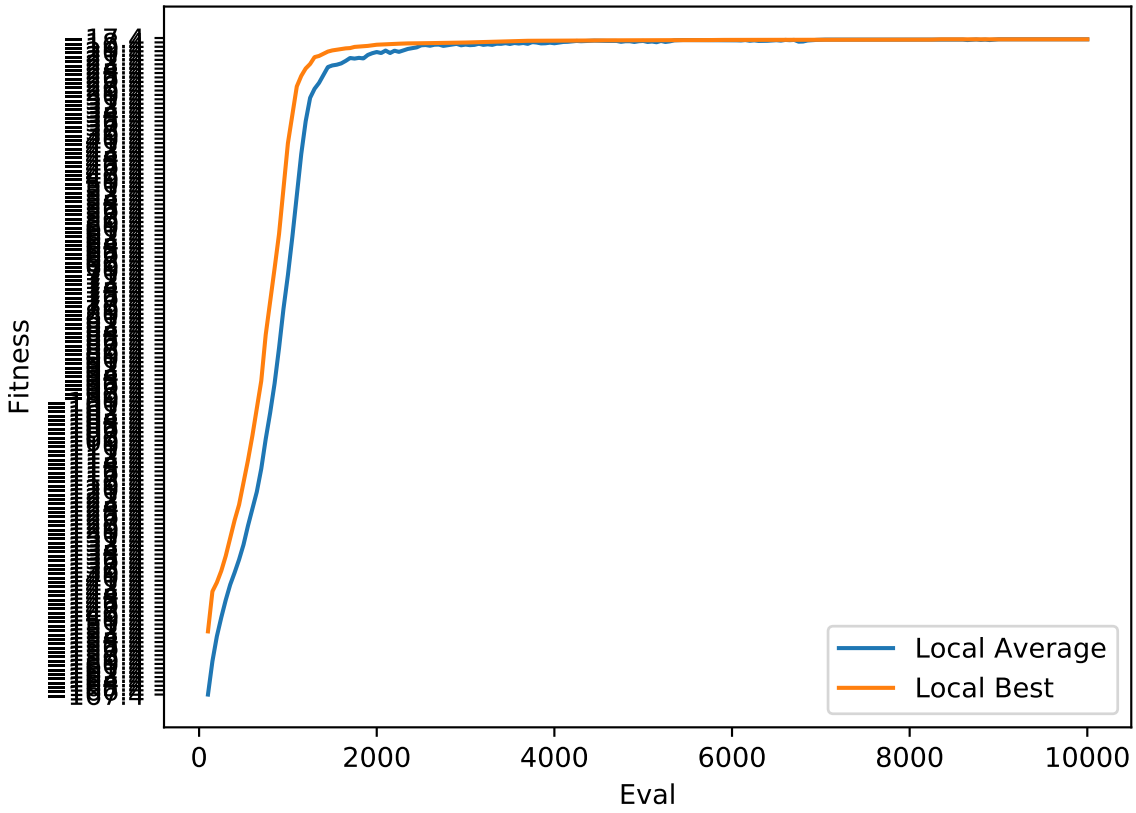

Figure 19: Input 1

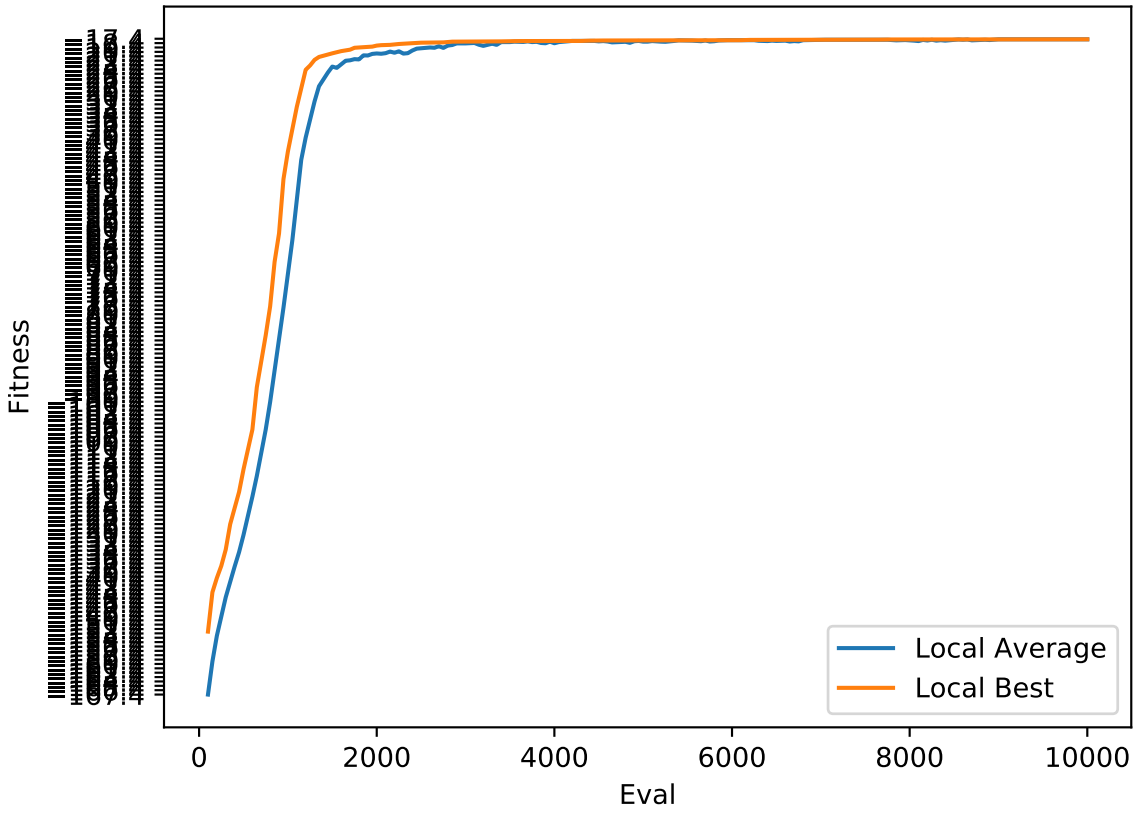

Table 20: Figure 20 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	False
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1020
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Table 21: Figure 21 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1021
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Figure 20: Input 1

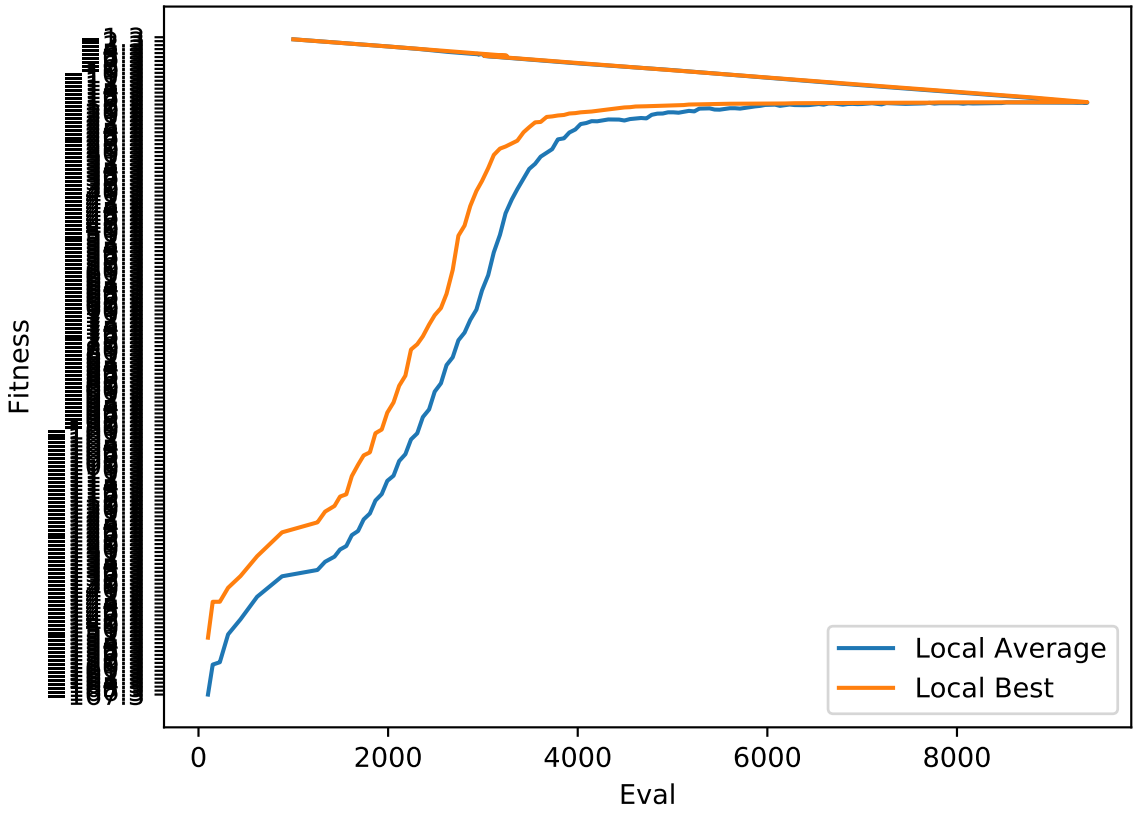

Figure 21: Input 1

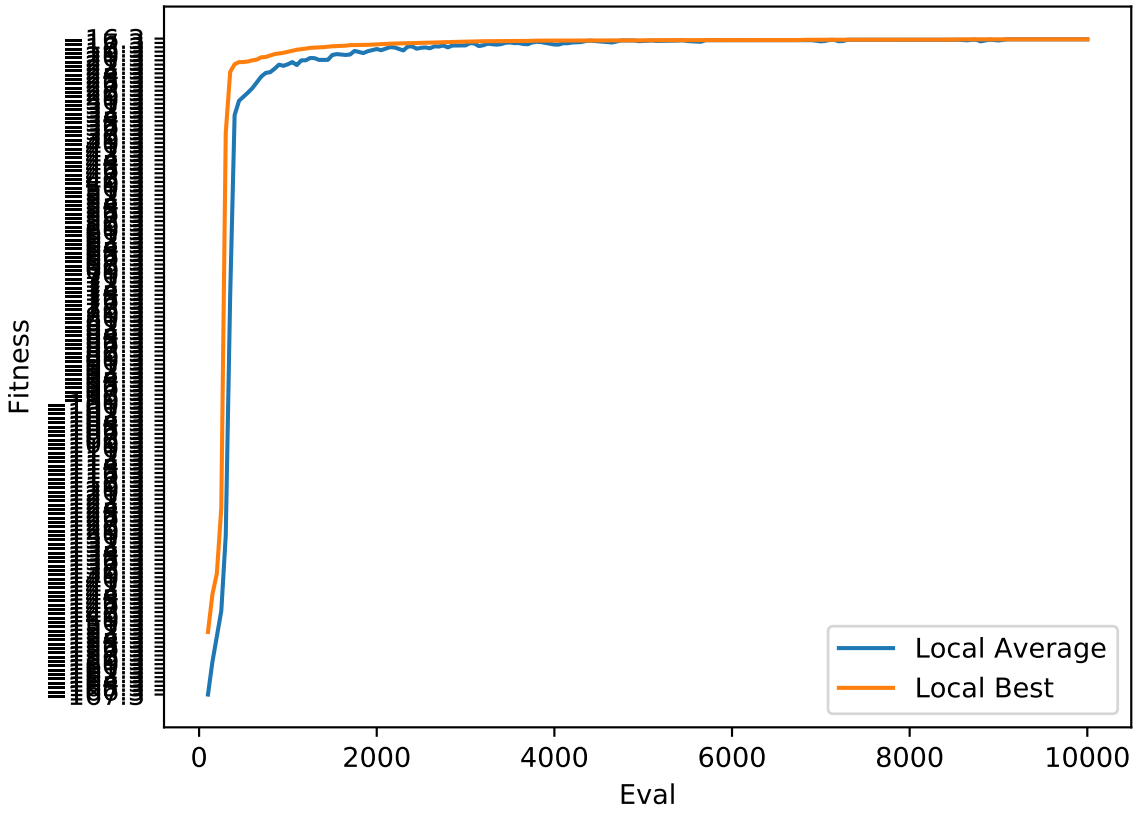

Table 22: Figure 22 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1022
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	False
Termination Convergence Criterion	10000
Population Size	100

Table 23: Figure 23 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1023
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	False
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 22: Input 1

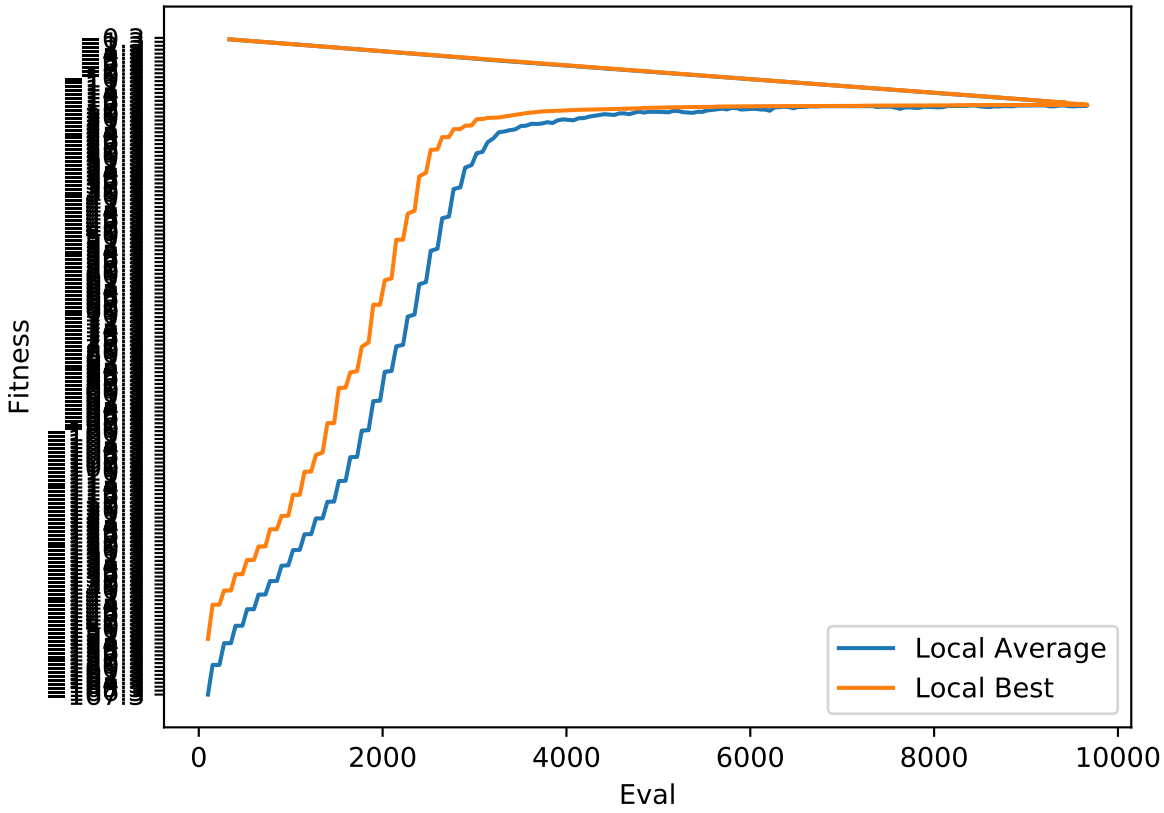

Figure 23: Input 1

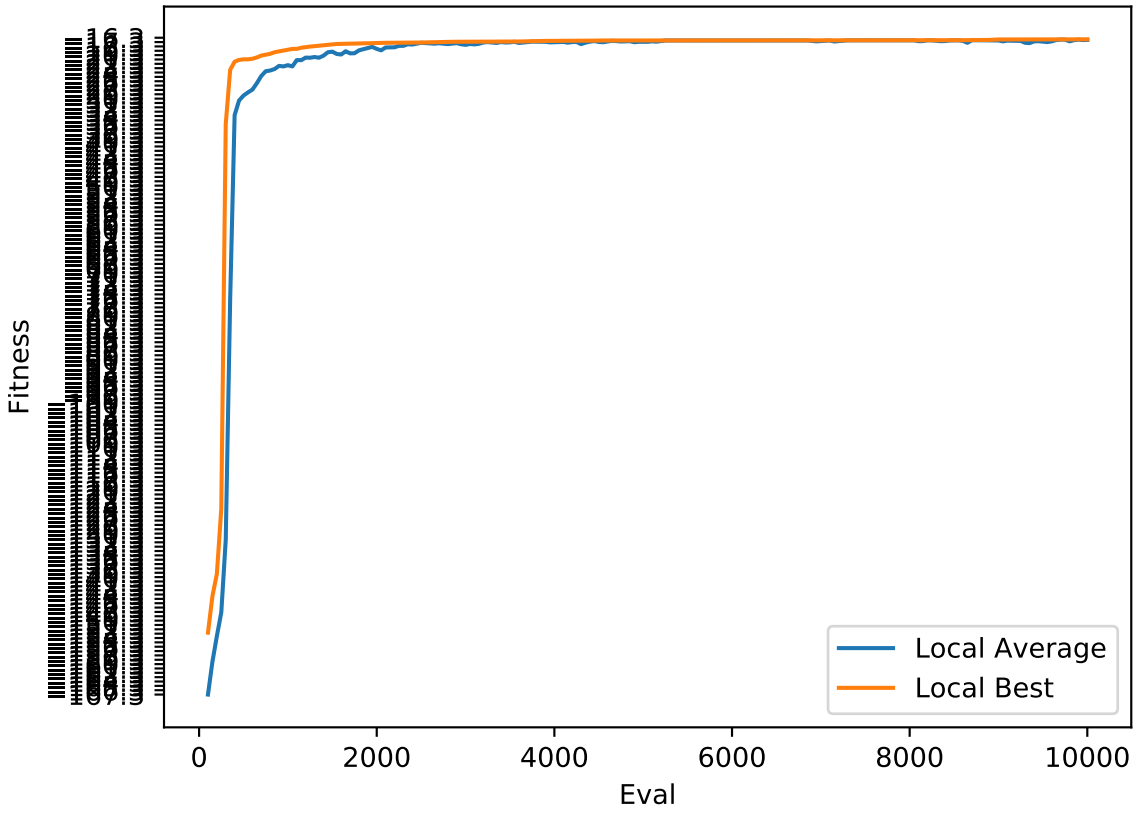

Table 24: Figure 24 Configuration File

Penalty Coefficient	1
Self Adaptive Mutation Rate	True
Runs	30
Tournament Size For Parent Selection	5
Parent Selection Algorithm	k-Tournament Selection with replacement
Mutation Algorithm	Move
Search Algorithm	EA
Tournament Size For Survival Selection	5
Random Seed	1024
Survivor Algorithm	Truncation
Survival Strategy	Plus
Recombination Algorithm	Partially Mapped Crossover
Solution File Path	None
Fitness Evaluations	10000
Offspring Count	50
Self Adaptive Offspring Count	True
Placement Algorithm	Random with Penalty
Mutation Rate	0.1
Log File Path	None
Self Adaptive Penalty Coefficient	True
Termination Convergence Criterion	10000
Population Size	100

Figure 24: Input 1