

GLKH results for BAF instances

Keld Helsgaun
Roskilde University, Denmark
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In his PhD thesis, “[Techniques hybrides de recherche exacte et approchée: application à des problèmes de transport](#)” (2008), Boris Bontoux defined a series of GTSP instances, where the groups (clusters) are not formed by a clustering method (as is the case for GTSPLIB), but are formed pseudorandomly. These instances, called BAF instances, are derived from TSPLIB instances by associating each vertex i ($1 \leq i \leq n$) with group C_j , where $j = (i \bmod m) + 1$, and $m = \lceil n / 5 \rceil$.

The table below shows the current best costs found by GLKH together with the costs obtained by Bontoux. In those cases where GLKH found a better tour than Bontoux, the cost is printed in boldface.

Name	GLKH	Bontoux
baf10att48	1774	1774
baf10gr48	1182	1182
baf10hk48	2112	2112
baf11eil51	86	86
baf12brazil58	3378	3378
baf14st70	141	141
baf16eil76	107	107
baf16pr76	18349	18349
baf20kroA100	5010	5044
baf20kroB100	5395	5395
baf20kroC100	5785	5799
baf20kroD100	5266	5266
baf20kroE100	5449	5449
baf20rat99	230	230
baf20rd100	1747	1747
baf21eil101	105	105
baf21lin105	2758	2758
baf22pr107	6849	6849
baf24gr120	1377	1412
baf25pr124	10745	10745
baf26bier127	11740	11740
baf28pr136	17824	17824
baf29pr144	14070	14070
baf30kroA150	7005	7076
baf30kroB150	5855	5855
baf31pr152	13002	13002
baf32u159	7301	7301
baf39rat195	477	477

Name	GLKH	Bontoux
baf40d198	1466	1500
baf40kroA200	7113	7126
baf40kroB200	7126	7375
baf41gr202	3531	3656
baf45ts225	25697	26059
baf46pr226	13555	13555
baf53gil262	571	591
baf53pr264	7716	7716
baf60pr299	10047	10137
baf64lin318	7489	7762
baf80rd400	3254	3725
baf84fl417	2226	2267
baf87gr431	10569	10787
baf88pr439	13882	14292
baf89pcb442	8749	10266
baf99d493	3081	3156
baf107att532	3880	4392
baf107si535	8912	9059
baf113pa561	431	460
baf115rat575	1330	1366
baf131p654	5824	5956
baf132d657	8132	8821
baf145u724	7354	10165
baf157rat783	1700	1931
baf201pr1002	48400	50225
baf207si1032	18836	19108
baf212u1060	38639	44684
baf217vm1084	44681	61595