

## Results for MTSP\_GAL\_MINSUM (mTSP)

Keld Helsgaun, November 19, 2018

Instance	$m$	$P$	GAL	LKH-3	Gap (%)
pr76	5	20	152278	<b>150569</b>	<b>-1.12</b>
	10	20	177806	<b>174115</b>	<b>-2.08</b>
	15	20	218901	<b>214685</b>	<b>-1.93</b>
pr152	5	40	116620	<b>113564</b>	<b>-2.62</b>
	10	40	132917	<b>122307</b>	<b>-7.98</b>
	15	40	154249	<b>143084</b>	<b>-7.24</b>
pr226	5	50	148040	<b>141600</b>	<b>-4.35</b>
	10	50	167782	<b>151452</b>	<b>-9.73</b>
	15	50	180431	<b>167449</b>	<b>-7.19</b>
pr299	5	70	75145	<b>66779</b>	<b>-11.13</b>
	10	70	75450	<b>69613</b>	<b>-7.74</b>
	15	70	84266	<b>77450</b>	<b>-8.09</b>
pr439	5	100	141180	<b>133772</b>	<b>-5.25</b>
	10	100	144527	<b>134747</b>	<b>-6.77</b>
	15	100	149649	<b>138845</b>	<b>-7.22</b>
pr1002	5	220	332652	<b>292362</b>	<b>-12.11</b>
	10	220	347126	<b>308289</b>	<b>-11.19</b>
	20	220	379677	<b>331352</b>	<b>-12.82</b>

GAL:

Kin-Ming Lo, Wei-Ying Yi, Pak-Kan Wong, Kwong-Sak Leung, Yee Leung, Sui-Tung Mak:  
*A Genetic Algorithm with New Local Operators for Multiple Traveling Salesman Problems.*  
 Int. J. Comput. Int. Sys., 11: 692-705 (2018)

$$m = \text{SALESMEN}$$

$$P = \text{MTSP\_MAX\_SIZE}$$