

## Results for Set\_I\_MINMAX (mTSP)

Keld Helsgaun, March 16, 2022

Instance	$m$	BKS	LKH-3	Gap (%)
mtsp51	3	159.57	159.57	0.00
mtsp51	5	118.13	118.13	0.00
mtsp51	10	112.07	112.07	0.00
mtsp100	3	8509.16	8509.16	0.00
mtsp100	5	6765.73	6765.73	0.00
mtsp100	10	6358.49	6358.49	0.00
mtsp100	20	6358.49	6358.49	0.00
rand100	3	3031.95	3031.95	0.00
rand100	5	2411.68	<b>2409.63</b>	<b>-0.09</b>
rand100	10	2299.16	2299.16	0.00
rand100	20	2299.16	2299.16	0.00
mtsp150	3	13075.80	<b>13038.34</b>	<b>-0.29</b>
mtsp150	5	8477.96	<b>8449.87</b>	<b>-0.33</b>
mtsp150	10	5590.64	<b>5557.40</b>	<b>-0.59</b>
mtsp150	20	5246.49	5246.49	0.00
mtsp150	30	5246.49	5246.49	0.00
gtsp150	3	2407.34	<b>2401.63</b>	<b>-0.24</b>
gtsp150	5	1741.71	<b>1741.13</b>	<b>-0.03</b>
gtsp150	10	1554.64	1554.64	0.00
gtsp150	20	1554.64	1554.64	0.00
gtsp150	30	1554.64	1554.64	0.00
kroA200	3	10748.10	<b>10691.03</b>	<b>-0.53</b>
kroA200	5	7418.87	<b>7412.12</b>	<b>-0.09</b>
kroA200	10	6223.22	6223.22	0.00
kroA200	10	6223.22	6223.22	0.00
lin318	3	15902.50	<b>15701.26</b>	<b>-1.27</b>
lin318	5	11295.20	<b>11288.52</b>	<b>-0.06</b>
lin318	10	9731.17	9731.17	0.00
lin318	20	9731.17	9731.17	0.00
att532	3	10231.00	<b>9865.51</b>	<b>-3.57</b>
att532	5	7067.00	<b>6901.71</b>	<b>-2.34</b>
att532	10	5709.00	<b>5681.68</b>	<b>-0.48</b>
att532	20	5580.00	<b>5578.63</b>	<b>-0.02</b>
rat783	3	3187.90	<b>3064.01</b>	<b>-3.89</b>
rat783	5	2006.46	<b>1968.83</b>	<b>-1.88</b>
rat783	10	1334.76	<b>1317.36</b>	<b>-1.30</b>
rat783	20	1231.69	1231.69	0.00
pcb1173	3	20813.80	<b>19556.70</b>	<b>-6.04</b>
pcb1173	5	13032.30	<b>12357.02</b>	<b>-5.18</b>
pcb1173	10	7758.26	<b>7558.44</b>	<b>-2.58</b>
pcb1173	20	6528.86	6528.86	0.00