Supplementary Material of “Distance-based Subset Selection Revisited”

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The hypervolume and IGD results are shown in Table 1.

Table 1: The hypervolume/IGD of the subsets obtained by the iterative DSS algorithm using different distances. The subset size is 100. The value is the average over 30 candidate solution sets. The best and worst results in each row are highlighted in bold and underlined italics, respectively, based on their precise values instead of the displayed values in the table.

Solution sets	m	Euclidean	Manhattan	Chebyshev	Minkowski ($p = 0.5$)	Cosine	IGD-I	IGD-II
Linear	3	1.1205/0.0386	1.1206 /0.0382	1.1206 /0.0382	1.1196/ 0.0378	<i>1.1173/0.0406</i>	1.1197/0.0391	1.1206 /0.0382
	5	1.5597 /0.1189	1.5576/0.1166	1.5590/0.1188	1.5512/ 0.1146	<i>1.5498/0.1271</i>	1.5594/0.1192	1.5592/0.1176
	10	2.5887 /0.1973	2.5862/0.2072	2.5884/0.1905	2.5720/0.2143	2.5819/0.2354	2.5886/0.1974	2.5884/0.1934
Convex	3	1.3130/0.0253	1.3134/0.0256	1.3125/ 0.0251	1.3138 /0.0266	<i>1.3084/0.0605</i>	1.3120/0.0383	1.3127/0.0254
	5	1.6101/0.0483	1.6101/0.0511	1.6100/ 0.0453	1.6102 /0.0624	<i>1.6099/0.1362</i>	1.6100/0.0715	1.6100/0.0469
	10	2.5937/0.0708	2.5937/0.0748	2.5937/ 0.0649	2.5937 /0.0976	<i>2.5937/0.1850</i>	2.5937/0.1003	2.5937/0.0674
Concave	3	0.7449 / 0.0511	0.7448/0.0512	0.7422/0.0515	0.7429/0.0516	0.7449 / 0.0511	<i>0.7302/0.0587</i>	0.7428/0.0512
	5	1.1872/0.1947	1.1717/0.1910	1.1907/0.2008	1.1523/ 0.1894	1.1872/0.1947	<i>1.1038/0.1946</i>	1.1921 /0.1968
	10	2.1429/0.4159	2.0136/0.4093	2.2062 /0.4243	1.8698/ 0.4062	2.1429/0.4159	<i>1.8543/0.4220</i>	2.2045/0.4176
I-Linear	3	0.2978 /0.0386	0.2978/0.0382	0.2978/0.0382	0.2973/ 0.0378	<i>0.2972/0.0389</i>	<i>0.2974/0.0391</i>	0.2978/0.0382
	5	0.0169/0.1189	0.0176/0.1166	0.0166/0.1188	0.0179 / 0.1146	0.0170/0.1191	0.0168/0.1192	0.0169/0.1176
	10	5.7e-07/0.1973	9.3e-07/0.2072	5.0e-07 / 0.1905	1.2e-06 /0.2143	5.8e-07/0.1976	5.7e-07/0.1974	6.0e-07/0.1934
I-Convex	3	0.7191/ 0.0511	0.7213/0.0512	0.7148/0.0515	0.7225 /0.0516	<i>0.7128/0.0625</i>	0.7162/0.0587	0.7162/0.0512
	5	0.1629/0.1947	0.1705/0.1910	0.1508/0.2008	0.1745 / 0.1894	0.1715/0.1938	0.1659/0.1946	0.1583/0.1968
	10	1.7e-04/0.4159	2.7e-04/0.4093	<i>7.6e-05/0.4243</i>	3.4e-04 / 0.4062	2.2e-04/0.4154	1.7e-04/0.4220	1.6e-04/0.4176
I-Concave	3	0.0797/0.0253	0.0796/0.0256	0.0786/ 0.0251	0.0782/0.0266	0.0798 /0.0253	0.0792/0.0383	0.0793/0.0254
	5	0.0017/0.0483	0.0017 /0.0511	0.0016/ 0.0453	<i>0.0016/0.0624</i>	0.0017/0.0482	0.0017/0.0715	0.0016/0.0469
	10	2.9e-08/0.0708	3.0e-08/0.0748	2.7e-08/ 0.0649	<i>2.7e-08/0.0976</i>	2.9e-08/0.0708	3.0e-08 / <i>0.1003</i>	2.8e-08/0.0674