Objective Archive Management
NSGA3 k, ℓ, and overlap parameters

This document contains graphs showing the influence of the k and l parameters, as well as the amount of overlap, on the solution set size when applying S-OAM to NSGA3. The y-axis indicates the final solution set size, and the x-axis labels the k and ℓ parameters used when applying S-OAM. Each point represents a single reduced non-dominated solution set, the points are connected to highlight changes in size as k and ℓ change. The different colored lines denote different overlap counts used to determine the final solution set. We looked at $k, \ell = \{0.5, 0.4, 0.3, 0.2\}$ and $oc = \{40\%, 60\%, 80\%\}$.
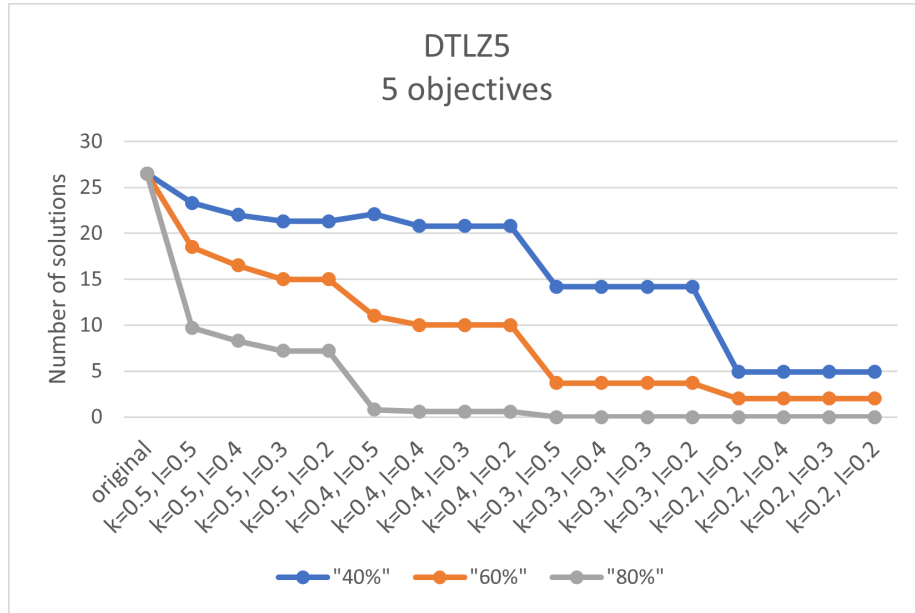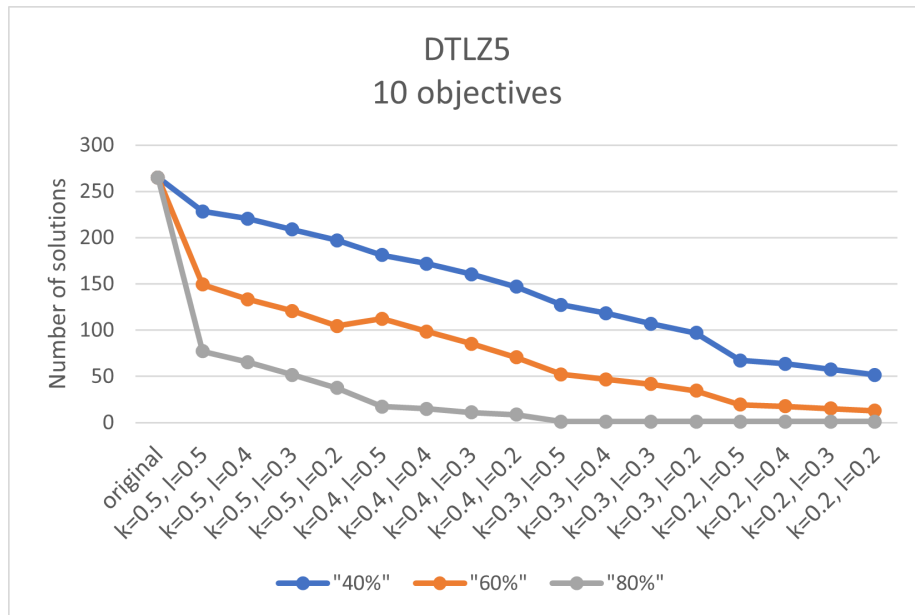
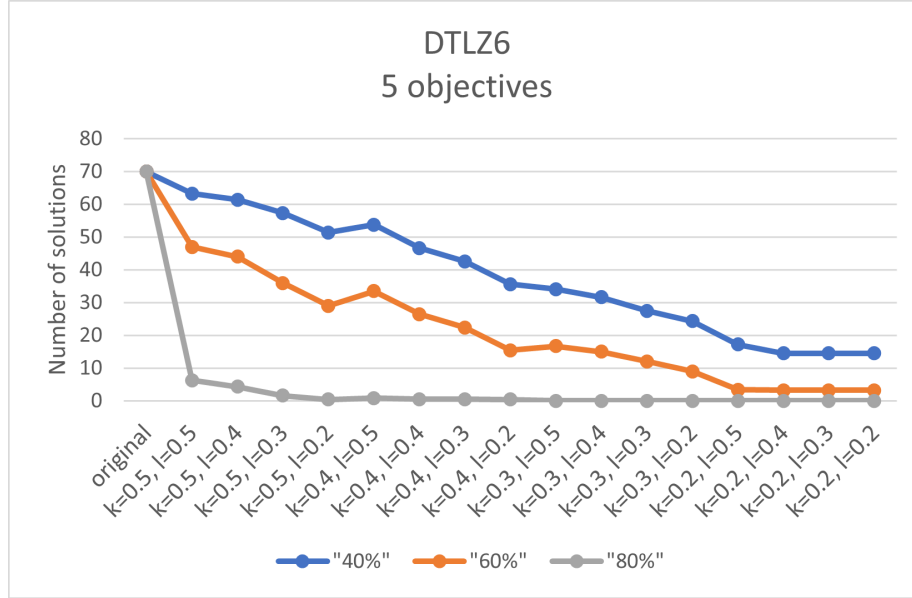Figure 1: DTLZ5 five objectives.

Figure 2: DTLZ5 ten objectives.

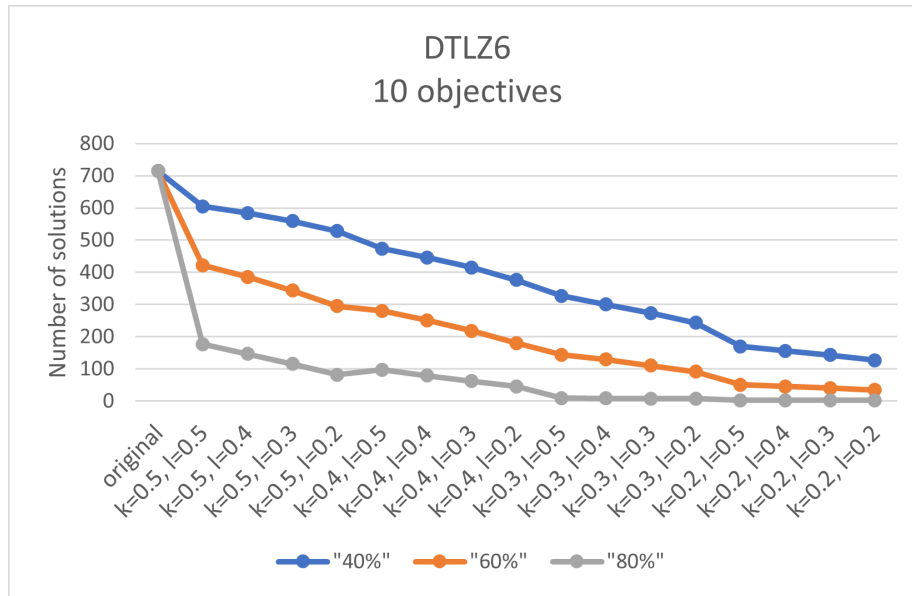Figure 3: DTLZ6 five objectives.

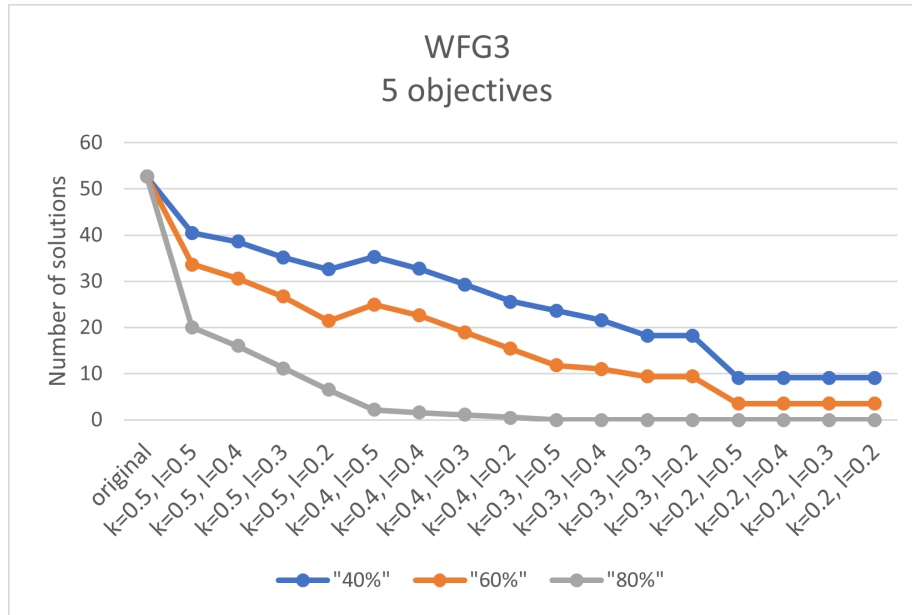
Figure 4: DTLZ6 ten objectives.

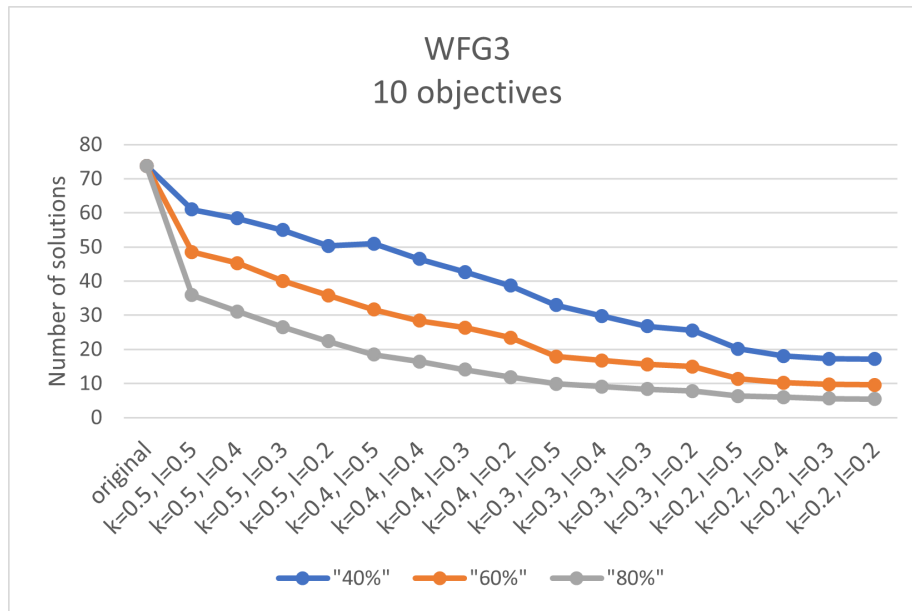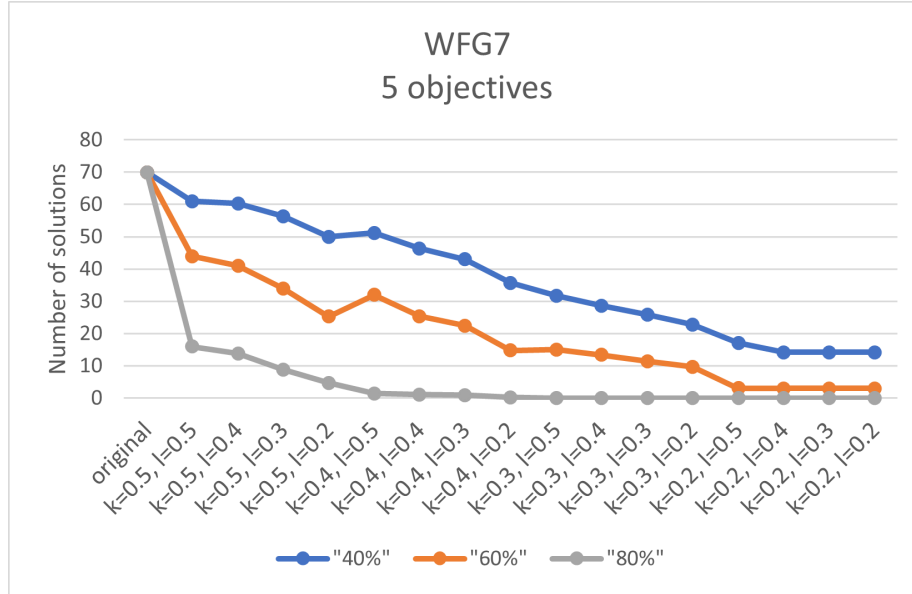Figure 5: WFG3 five objectives.
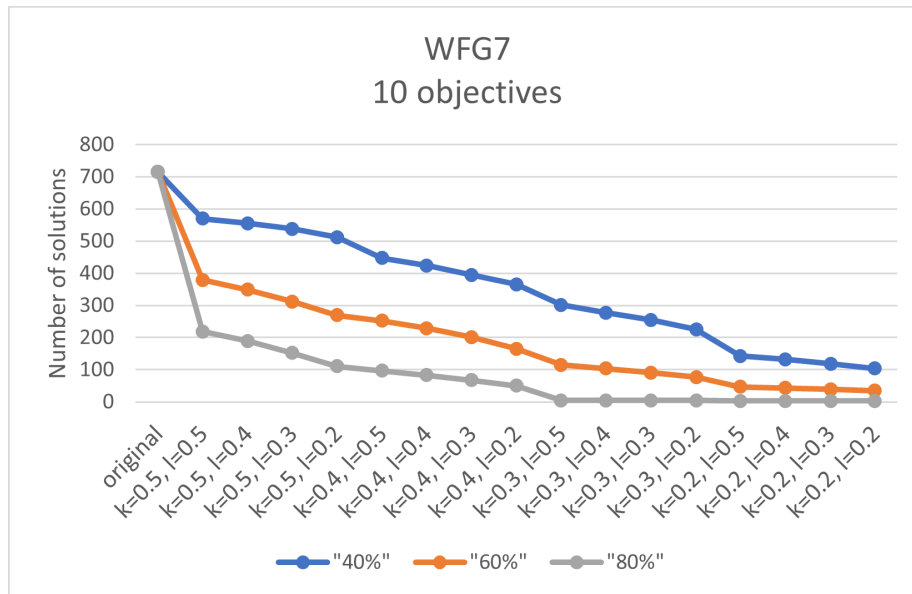

Figure 6: WFG3 ten objectives.

Figure 7: WFG7 five objectives.

Figure 8: WFG7 ten objectives.