Multi-objective Path Planning Workspaces

Test Problems

There are designed 11 different workspaces which some of them are difficult for usual path planning algorithms. Each workspace is defined by a bounding box with the size of 750*650 containing some obstacles. Each obstacle is defined by their vertices, and each vertex is shown by its *x* and *y* positions as the point (*x,y*). The origin is assumed the left-upper corner of the workspace. See the *txt* file in each folder.

For each workspace we also determine 1, 2 or 3 pairs of start and goal positions for path planning. Name of each figure denotes the start and goal positions. Such selected pairs of start and goal positions cause to different Pareto optimal fronts. Due to continuity of the workspaces, there are many infinite paths with trade-off among the shortness, smoothness and clearance.