

Main function:

1. TianYumiddleMR_v2.m

input: N and K;

output: a figure showing new corner points.

- In this function, only N and K in the beginning (line 5) can be customized. The function will output a figure showing new (M, R) corner point(s) (if found) between a pair of points from Tian coding scheme and Yu coding scheme.
- The function is structured into 6 sections, the first 5 sections aim to storing the matrices M, R, Aeq, etc., for later use in the optimizing process which is in section 6.
- The optimization works by solving the LP with the objective function $M + \alpha R$. For a fixed t , each iteration finds a new corner point among all demands, that is, the best point that all demands can reach, therefore the effort of performing polygon intersection is saved.
- The file paths in line 153 and line 173 need to be customized and remain consistent.