Default setting

-d 4 -k 10 -u USER4d10k.txt -p HOTEL4D.txt -P HOTEL4D\_P.txt -un 1000 -pn 186637 -Pn 10000 -obs1 1 -obs2 1 -obs3 1 -obs4 0 -obs5 1 -prunk 512 -p\_gen 10000000 -out\_id 21 -rstdout 0

user uniform

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| user cnt | | 1k | 5k | 10k | |
| p1+p2+p3+p4 <=1.25 | | | | | |
| After OBS2 | | 473 | 2310 | 4657 | |
| After OBS3 | | 147 | 581 | 1143 | |
| PRUNK | | 56 | 249 | 492 | |
| p1+p2+p3+p4 <=1 | | | | | |
| After OBS2 | 473 | | 2310 | | 4657 |
| After OBS3 | 66 | | 244 | | 456 |
| PRUNK | 32 | | 130 | | 249 |
| p1+p2+p3+p4 <=0.75 | | | | | |
| After OBS2 | 473 | | 2310 | | 4657 |
| After OBS3 | 0 | | 0 | | 1 |
| PRUNK | 0 | | 0 | | 0 |
| 0.75p1+0.75p2+1.25p3+1.25p4 <=1 | | | | | |
| After OBS2 | 473 | | 2310 | | 4657 |
| After OBS3 | 29 | | 135 | | 265 |
| PRUNK | 7 | | 46 | | 75 |
| 0.75p1+0.92p2+0.92p3+0.92p4 <=1 | | | | | |
| After OBS2 | 473 | | 2310 | | 4657 |
| After OBS3 | 81 | | 342 | | 661 |
| PRUNK | 41 | | 182 | | 340 |

user gauss

|  |  |  |  |
| --- | --- | --- | --- |
| user cnt | 1k | 5k | 10k |
| p1+p2+p3+p4 <=1.25 | | | |
| After OBS2 | 248 | 1189 | 2458 |
| After OBS3 | 5 | 16 | 26 |
| PRUNK | 2 | 7 | 12 |
| p1+p2+p3+p4 <=1 | | | |
| After OBS2 | 248 | 1189 | 2458 |
| After OBS3 | 0 | 0 | 0 |
| PRUNK | 0 | 0 | 0 |
| p1+p2+p3+p4 <=0.75 | | | |
| After OBS2 | 248 | 1189 | 2458 |
| After OBS3 | 0 | 0 | 0 |
| PRUNK | 0 | 0 | 0 |
| 0.75p1+0.75p2+1.25p3+1.25p4 <=1 | | | |
| After OBS2 | 248 | 1189 | 2458 |
| After OBS3 | 0 | 0 | 0 |
| PRUNK | 0 | 0 | 0 |
| 0.75p1+0.92p2+0.92p3+0.92p4 <=1 | | | |
| After OBS2 | 248 | 1189 | 2458 |
| After OBS3 | 1 | 2 | 6 |
| PRUNK | 0 | 1 | 3 |

user triangular

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| user cnt | | 1k | 5k | 10k | |
| p1+p2+p3+p4 <=1.25 | | | | | |
| After OBS2 | | 352 | 1746 | 3473 | |
| After OBS3 | | 23 | 132 | 252 | |
| PRUNK | | 7 | 50 | 99 | |
| p1+p2+p3+p4 <=1 | | | | | |
| After OBS2 | 352 | | 1746 | | 3473 |
| After OBS3 | 3 | | 25 | | 42 |
| PRUNK | 1 | | 11 | | 21 |
| p1+p2+p3+p4 <=0.75 | | | | | |
| After OBS2 | 352 | | 1746 | | 3473 |
| After OBS3 | 0 | | 0 | | 0 |
| PRUNK | 0 | | 0 | | 0 |
| 0.75p1+0.75p2+1.25p3+1.25p4 <=1 | | | | | |
| After OBS2 | 352 | | 1746 | | 3473 |
| After OBS3 | 0 | | 17 | | 24 |
| PRUNK | 0 | | 1 | | 3 |
| 0.75p1+0.92p2+0.92p3+0.92p4 <=1 | | | | | |
| After OBS2 | 352 | | 1746 | | 3473 |
| After OBS3 | 5 | | 45 | | 78 |
| PRUNK | 1 | | 18 | | 36 |

|  |  |  |  |
| --- | --- | --- | --- |
| Cell cnt | 1k | 5k | 10k |
| DEFAULT | 4048 | 209512 | 1719156 |
| WITHOUT OBS1 | 4330 | 321594 | 7072922 |
| WITHOUT prunk | 26406 | 1318174 | 10233412 |
| K=4 | 5112 | 327802 | 2217786 |
| k=7 | 4904 | 282202 | 2128646 |
| K=10(DEFAULT) | 4048 | 209512 | 1719156 |
| K=20 | 310 | 10100 | 49652 |
| K=30 | 4 | 10 | 10 |
| K=50 | 0 | 4 | 4 |
| K=70 | 0 | 0 | 0 |

|  |  |  |  |
| --- | --- | --- | --- |
| Lp\_solve cnt | 1k | 5k | 10k |
| OBS1 | 21687 | 977148 | 7883192 |
| WITHOUT OBS1 | 22447 | 1332533 | 21677900 |
| WITHOUT prunk | 124589 | 5972491 | 46103059 |
| K=4 | 27389 | 1515847 | 10085110 |
| k=7 | 25282 | 1295799 | 9627581 |
| K=10(DEFAULT) | 21687 | 977148 | 7883192 |
| K=20 | 2016 | 52107 | 240058 |
| K=30 | 8 | 26 | 26 |
| K=50 | 0 | 8 | 8 |
| K=70 | 0 | 0 | 0 |

|  |  |  |  |
| --- | --- | --- | --- |
| Cell Tree time | 1k | 5k | 10k |
| OBS1 | 3.25 | 229.48 | 1918.4 |
| WITHOUT OBS1 | 3.32 | 360.1 | 5759.59 |
| WITHOUT prunk | 21.8 | 1528.71 | 12571.7 |
| K=4 | 4.3 | 369.72 | 2583 |
| k=7 | 3.94 | 307.17 | 2443.84 |
| K=10(DEFAULT) | 3.25 | 229.48 | 1918.4 |
| K=20 | 0.3 | 9.74 | 48.78 |
| K=30 | 0 | 0.01 | 0.01 |
| K=50 | 0 | 0 | 0 |
| K=70 | 0 | 0 | 0 |