

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16.  7. 112. 119.]
81 cord_individual_obj[indivial_i,:] = [ 17.  8. 120. 128.]
82 cord_individual_obj[indivial_i,:] = [ 18.  8. 131. 139.]
83 cord_individual_obj[indivial_i,:] = [19.  8. 65. 73.]
84 cord_individual_obj[indivial_i,:] = [ 20.  6. 140. 146.]
85 cord_individual_obj[indivial_i,:] = [ 21.  8. 169. 177.]
86 cord_individual_obj[indivial_i,:] = [ 22.  8. 137. 145.]
87 cord_individual_obj[indivial_i,:] = [23.  8. 72. 80.]
88 cord_individual_obj[indivial_i,:] = [ 24.  9. 95. 104.]
89
90 min(cord_individual_obj[:,3]) = 71.0
91 historl_G_best_iter[iter, 3] = 71.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0.  9. 95. 104.]
96 cord_individual_obj[indivial_i,:] = [ 1.  7. 86. 93.]
97 cord_individual_obj[indivial_i,:] = [ 2.  8. 94. 102.]
98 cord_individual_obj[indivial_i,:] = [ 3.  8. 139. 147.]
99 cord_individual_obj[indivial_i,:] = [ 4.  7. 112. 119.]
100 cord_individual_obj[indivial_i,:] = [ 5.  8. 182. 190.]
101 cord_individual_obj[indivial_i,:] = [ 6.  8. 83. 91.]
102 cord_individual_obj[indivial_i,:] = [ 7.  6. 108. 114.]
103 cord_individual_obj[indivial_i,:] = [ 8.  7. 111. 118.]
104 cord_individual_obj[indivial_i,:] = [ 9.  8. 63. 71.]
105 cord_individual_obj[indivial_i,:] = [10.  7. 88. 95.]
106 cord_individual_obj[indivial_i,:] = [11.  7. 134. 141.]
107 cord_individual_obj[indivial_i,:] = [12.  7. 101. 108.]
108 cord_individual_obj[indivial_i,:] = [13.  6. 102. 108.]
109 cord_individual_obj[indivial_i,:] = [14.  8. 118. 126.]
110 cord_individual_obj[indivial_i,:] = [15.  6. 91. 97.]
111 cord_individual_obj[indivial_i,:] = [16.  9. 89. 98.]
112 cord_individual_obj[indivial_i,:] = [17.  8. 87. 95.]
113 cord_individual_obj[indivial_i,:] = [18.  8. 85. 93.]
114 cord_individual_obj[indivial_i,:] = [19.  9. 82. 91.]
115 cord_individual_obj[indivial_i,:] = [20.  9. 88. 97.]
116 cord_individual_obj[indivial_i,:] = [21.  9. 116. 125.]
117 cord_individual_obj[indivial_i,:] = [22.  6. 102. 108.]
118 cord_individual_obj[indivial_i,:] = [23.  7. 119. 126.]
119 cord_individual_obj[indivial_i,:] = [24.  6. 116. 122.]
120
121 min(cord_individual_obj[:,3]) = 71.0
122 historl_G_best_iter[iter, 3] = 71.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0.  9. 82. 91.]
127 cord_individual_obj[indivial_i,:] = [ 1.  9. 177. 186.]
128 cord_individual_obj[indivial_i,:] = [ 2.  9. 174. 183.]
129 cord_individual_obj[indivial_i,:] = [ 3.  6. 127. 133.]
130 cord_individual_obj[indivial_i,:] = [ 4.  6. 147. 153.]
131 cord_individual_obj[indivial_i,:] = [ 5.  8. 63. 71.]
132 cord_individual_obj[indivial_i,:] = [ 6.  6. 85. 91.]
133 cord_individual_obj[indivial_i,:] = [ 7.  7. 77. 84.]
134 cord_individual_obj[indivial_i,:] = [ 8.  7. 91. 98.]
135 cord_individual_obj[indivial_i,:] = [ 9.  7. 89. 96.]
136 cord_individual_obj[indivial_i,:] = [10.  6. 103. 109.]
137 cord_individual_obj[indivial_i,:] = [11.  6. 81. 87.]
138 cord_individual_obj[indivial_i,:] = [12.  9. 131. 140.]
139 cord_individual_obj[indivial_i,:] = [13.  7. 125. 132.]
140 cord_individual_obj[indivial_i,:] = [14.  8. 105. 113.]
141 cord_individual_obj[indivial_i,:] = [15.  8. 141. 149.]
142 cord_individual_obj[indivial_i,:] = [16.  6. 83. 89.]
143 cord_individual_obj[indivial_i,:] = [17.  6. 117. 123.]
144 cord_individual_obj[indivial_i,:] = [18.  7. 107. 114.]
145 cord_individual_obj[indivial_i,:] = [19.  7. 104. 111.]
146 cord_individual_obj[indivial_i,:] = [20.  7. 97. 104.]
147 cord_individual_obj[indivial_i,:] = [21.  7. 132. 139.]
148 cord_individual_obj[indivial_i,:] = [22.  7. 153. 160.]
149 cord_individual_obj[indivial_i,:] = [23.  9. 129. 138.]
150 cord_individual_obj[indivial_i,:] = [24.  6. 59. 65.]
151
152 min(cord_individual_obj[:,3]) = 65.0
153 historl_G_best_iter[iter, 3] = 65.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0.  7. 92. 99.]
158 cord_individual_obj[indivial_i,:] = [ 1.  6. 59. 65.]
159 cord_individual_obj[indivial_i,:] = [ 2.  8. 180. 188.]
160 cord_individual_obj[indivial_i,:] = [ 3.  6. 50. 56.]
161 cord_individual_obj[indivial_i,:] = [ 4.  7. 67. 74.]
162 cord_individual_obj[indivial_i,:] = [ 5.  7. 128. 135.]
163 cord_individual_obj[indivial_i,:] = [ 6.  9. 55. 64.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 7. 175. 182.]
165 cord_individual_obj[indivial_i,:] = [ 8. 8. 47. 55.]
166 cord_individual_obj[indivial_i,:] = [ 9. 6. 123. 129.]
167 cord_individual_obj[indivial_i,:] = [10. 8. 72. 80.]
168 cord_individual_obj[indivial_i,:] = [11. 6. 141. 147.]
169 cord_individual_obj[indivial_i,:] = [12. 8. 99. 107.]
170 cord_individual_obj[indivial_i,:] = [13. 7. 125. 132.]
171 cord_individual_obj[indivial_i,:] = [14. 6. 106. 112.]
172 cord_individual_obj[indivial_i,:] = [15. 7. 116. 123.]
173 cord_individual_obj[indivial_i,:] = [16. 7. 118. 125.]
174 cord_individual_obj[indivial_i,:] = [17. 7. 132. 139.]
175 cord_individual_obj[indivial_i,:] = [18. 5. 143. 148.]
176 cord_individual_obj[indivial_i,:] = [19. 6. 98. 104.]
177 cord_individual_obj[indivial_i,:] = [20. 7. 94. 101.]
178 cord_individual_obj[indivial_i,:] = [21. 8. 177. 185.]
179 cord_individual_obj[indivial_i,:] = [22. 7. 125. 132.]
180 cord_individual_obj[indivial_i,:] = [23. 9. 53. 62.]
181 cord_individual_obj[indivial_i,:] = [24. 7. 141. 148.]
182
183 min(cord_individual_obj[:,3]) = 55.0
184 historl_G_best_iter[iter,3] = 55.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 7. 84. 91.]
189 cord_individual_obj[indivial_i,:] = [ 1. 8. 98. 106.]
190 cord_individual_obj[indivial_i,:] = [ 2. 8. 47. 55.]
191 cord_individual_obj[indivial_i,:] = [ 3. 8. 129. 137.]
192 cord_individual_obj[indivial_i,:] = [ 4. 8. 116. 124.]
193 cord_individual_obj[indivial_i,:] = [ 5. 7. 167. 174.]
194 cord_individual_obj[indivial_i,:] = [ 6. 7. 52. 59.]
195 cord_individual_obj[indivial_i,:] = [ 7. 6. 93. 99.]
196 cord_individual_obj[indivial_i,:] = [ 8. 6. 140. 146.]
197 cord_individual_obj[indivial_i,:] = [ 9. 7. 86. 93.]
198 cord_individual_obj[indivial_i,:] = [10. 8. 96. 104.]
199 cord_individual_obj[indivial_i,:] = [11. 6. 134. 140.]
200 cord_individual_obj[indivial_i,:] = [12. 8. 78. 86.]
201 cord_individual_obj[indivial_i,:] = [13. 7. 87. 94.]
202 cord_individual_obj[indivial_i,:] = [14. 6. 103. 109.]
203 cord_individual_obj[indivial_i,:] = [15. 6. 49. 55.]
204 cord_individual_obj[indivial_i,:] = [16. 7. 101. 108.]
205 cord_individual_obj[indivial_i,:] = [17. 5. 146. 151.]
206 cord_individual_obj[indivial_i,:] = [18. 7. 115. 122.]
207 cord_individual_obj[indivial_i,:] = [19. 8. 124. 132.]
208 cord_individual_obj[indivial_i,:] = [20. 7. 121. 128.]
209 cord_individual_obj[indivial_i,:] = [21. 6. 119. 125.]
210 cord_individual_obj[indivial_i,:] = [22. 8. 118. 126.]
211 cord_individual_obj[indivial_i,:] = [23. 6. 117. 123.]
212 cord_individual_obj[indivial_i,:] = [24. 6. 122. 128.]
213
214 min(cord_individual_obj[:,3]) = 55.0
215 historl_G_best_iter[iter,3] = 55.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 7. 92. 99.]
220 cord_individual_obj[indivial_i,:] = [ 1. 8. 81. 89.]
221 cord_individual_obj[indivial_i,:] = [ 2. 6. 87. 93.]
222 cord_individual_obj[indivial_i,:] = [ 3. 7. 72. 79.]
223 cord_individual_obj[indivial_i,:] = [ 4. 9. 91. 100.]
224 cord_individual_obj[indivial_i,:] = [ 5. 8. 47. 55.]
225 cord_individual_obj[indivial_i,:] = [ 6. 8. 39. 47.]
226 cord_individual_obj[indivial_i,:] = [ 7. 6. 95. 101.]
227 cord_individual_obj[indivial_i,:] = [ 8. 6. 91. 97.]
228 cord_individual_obj[indivial_i,:] = [ 9. 9. 72. 81.]
229 cord_individual_obj[indivial_i,:] = [10. 7. 104. 111.]
230 cord_individual_obj[indivial_i,:] = [11. 9. 109. 118.]
231 cord_individual_obj[indivial_i,:] = [12. 6. 86. 92.]
232 cord_individual_obj[indivial_i,:] = [13. 9. 50. 59.]
233 cord_individual_obj[indivial_i,:] = [14. 6. 152. 158.]
234 cord_individual_obj[indivial_i,:] = [15. 6. 71. 77.]
235 cord_individual_obj[indivial_i,:] = [16. 9. 91. 100.]
236 cord_individual_obj[indivial_i,:] = [17. 6. 160. 166.]
237 cord_individual_obj[indivial_i,:] = [18. 6. 104. 110.]
238 cord_individual_obj[indivial_i,:] = [19. 7. 117. 124.]
239 cord_individual_obj[indivial_i,:] = [20. 9. 151. 160.]
240 cord_individual_obj[indivial_i,:] = [21. 8. 157. 165.]
241 cord_individual_obj[indivial_i,:] = [22. 7. 115. 122.]
242 cord_individual_obj[indivial_i,:] = [23. 7. 113. 120.]
243 cord_individual_obj[indivial_i,:] = [24. 7. 107. 114.]
244
245 min(cord_individual_obj[:,3]) = 47.0
246 historl_G_best_iter[iter,3] = 47.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0.  7. 53. 60.]
251 cord_individual_obj[indivial_i, :] = [ 1.  8. 71. 79.]
252 cord_individual_obj[indivial_i, :] = [ 2.  5. 84. 89.]
253 cord_individual_obj[indivial_i, :] = [ 3.  9. 59. 68.]
254 cord_individual_obj[indivial_i, :] = [ 4.  7. 97. 104.]
255 cord_individual_obj[indivial_i, :] = [ 5.  7. 192. 199.]
256 cord_individual_obj[indivial_i, :] = [ 6.  9. 96. 105.]
257 cord_individual_obj[indivial_i, :] = [ 7.  6. 101. 107.]
258 cord_individual_obj[indivial_i, :] = [ 8.  8. 51. 59.]
259 cord_individual_obj[indivial_i, :] = [ 9.  6. 92. 98.]
260 cord_individual_obj[indivial_i, :] = [10.  7. 70. 77.]
261 cord_individual_obj[indivial_i, :] = [11.  6. 100. 106.]
262 cord_individual_obj[indivial_i, :] = [12.  7. 68. 75.]
263 cord_individual_obj[indivial_i, :] = [13.  6. 72. 78.]
264 cord_individual_obj[indivial_i, :] = [14.  8. 65. 73.]
265 cord_individual_obj[indivial_i, :] = [15.  8. 117. 125.]
266 cord_individual_obj[indivial_i, :] = [16.  9. 111. 120.]
267 cord_individual_obj[indivial_i, :] = [17.  8. 39. 47.]
268 cord_individual_obj[indivial_i, :] = [18.  7. 98. 105.]
269 cord_individual_obj[indivial_i, :] = [19.  7. 142. 149.]
270 cord_individual_obj[indivial_i, :] = [20.  5. 113. 118.]
271 cord_individual_obj[indivial_i, :] = [21.  9. 109. 118.]
272 cord_individual_obj[indivial_i, :] = [22.  6. 73. 79.]
273 cord_individual_obj[indivial_i, :] = [23. 10. 112. 122.]
274 cord_individual_obj[indivial_i, :] = [24.  6. 89. 95.]
275

276 min(cord_individual_obj[:, 3]) = 47.0
277 historl_G_best_iter[iter, 3] = 47.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0.  7. 47. 54.]
282 cord_individual_obj[indivial_i, :] = [ 1.  9. 79. 88.]
283 cord_individual_obj[indivial_i, :] = [ 2.  9. 98. 107.]
284 cord_individual_obj[indivial_i, :] = [ 3.  8. 131. 139.]
285 cord_individual_obj[indivial_i, :] = [ 4.  8. 108. 116.]
286 cord_individual_obj[indivial_i, :] = [ 5.  8. 39. 47.]
287 cord_individual_obj[indivial_i, :] = [ 6.  10. 100. 110.]
288 cord_individual_obj[indivial_i, :] = [ 7.  8. 81. 89.]
289 cord_individual_obj[indivial_i, :] = [ 8.  7. 89. 96.]
290 cord_individual_obj[indivial_i, :] = [ 9.  7. 92. 99.]
291 cord_individual_obj[indivial_i, :] = [10.  8. 73. 81.]
292 cord_individual_obj[indivial_i, :] = [11.  6. 128. 134.]
293 cord_individual_obj[indivial_i, :] = [12.  6. 100. 106.]
294 cord_individual_obj[indivial_i, :] = [13.  8. 74. 82.]
295 cord_individual_obj[indivial_i, :] = [14.  8. 133. 141.]
296 cord_individual_obj[indivial_i, :] = [15.  8. 85. 93.]
297 cord_individual_obj[indivial_i, :] = [16.  9. 113. 122.]
298 cord_individual_obj[indivial_i, :] = [17.  7. 105. 112.]
299 cord_individual_obj[indivial_i, :] = [18.  7. 130. 137.]
300 cord_individual_obj[indivial_i, :] = [19.  6. 114. 120.]
301 cord_individual_obj[indivial_i, :] = [20.  7. 99. 106.]
302 cord_individual_obj[indivial_i, :] = [21. 10. 56. 66.]
303 cord_individual_obj[indivial_i, :] = [22.  8. 108. 116.]
304 cord_individual_obj[indivial_i, :] = [23.  7. 85. 92.]
305 cord_individual_obj[indivial_i, :] = [24.  7. 84. 91.]
306

307 min(cord_individual_obj[:, 3]) = 47.0
308 historl_G_best_iter[iter, 3] = 47.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 10. 62. 72.]
313 cord_individual_obj[indivial_i, :] = [ 1.  9. 73. 82.]
314 cord_individual_obj[indivial_i, :] = [ 2.  7. 113. 120.]
315 cord_individual_obj[indivial_i, :] = [ 3.  7. 77. 84.]
316 cord_individual_obj[indivial_i, :] = [ 4.  7. 102. 109.]
317 cord_individual_obj[indivial_i, :] = [ 5.  9. 110. 119.]
318 cord_individual_obj[indivial_i, :] = [ 6.  6. 67. 73.]
319 cord_individual_obj[indivial_i, :] = [ 7.  8. 64. 72.]
320 cord_individual_obj[indivial_i, :] = [ 8.  6. 122. 128.]
321 cord_individual_obj[indivial_i, :] = [ 9.  8. 105. 113.]
322 cord_individual_obj[indivial_i, :] = [10.  8. 134. 142.]
323 cord_individual_obj[indivial_i, :] = [11.  5. 143. 148.]
324 cord_individual_obj[indivial_i, :] = [12.  6. 101. 107.]
325 cord_individual_obj[indivial_i, :] = [13.  6. 129. 135.]
326 cord_individual_obj[indivial_i, :] = [14.  8. 39. 47.]
327 cord_individual_obj[indivial_i, :] = [15.  7. 139. 146.]
328 cord_individual_obj[indivial_i, :] = [16.  6. 95. 101.]
329 cord_individual_obj[indivial_i, :] = [17.  8. 105. 113.]
330 cord_individual_obj[indivial_i, :] = [18.  8. 144. 152.]
331 cord_individual_obj[indivial_i, :] = [19.  9. 75. 84.]

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332 cord_individual_obj[indivial_i,:] = [20. 7. 52. 59.]
333 cord_individual_obj[indivial_i,:] = [21. 6. 68. 74.]
334 cord_individual_obj[indivial_i,:] = [22. 7. 50. 57.]
335 cord_individual_obj[indivial_i,:] = [23. 7. 137. 144.]
336 cord_individual_obj[indivial_i,:] = [24. 7. 98. 105.]
337
338 min(cord_individual_obj[:,3]) = 47.0
339 histol_G_best_iter[iter,3] = 47.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i,:] = [ 0. 7. 70. 77.]
344 cord_individual_obj[indivial_i,:] = [ 1. 8. 100. 108.]
345 cord_individual_obj[indivial_i,:] = [ 2. 8. 92. 100.]
346 cord_individual_obj[indivial_i,:] = [ 3. 6. 102. 108.]
347 cord_individual_obj[indivial_i,:] = [ 4. 6. 108. 114.]
348 cord_individual_obj[indivial_i,:] = [ 5. 9. 116. 125.]
349 cord_individual_obj[indivial_i,:] = [ 6. 7. 74. 81.]
350 cord_individual_obj[indivial_i,:] = [ 7. 7. 63. 70.]
351 cord_individual_obj[indivial_i,:] = [ 8. 9. 151. 160.]
352 cord_individual_obj[indivial_i,:] = [ 9. 7. 151. 158.]
353 cord_individual_obj[indivial_i,:] = [10. 7. 71. 78.]
354 cord_individual_obj[indivial_i,:] = [11. 7. 60. 67.]
355 cord_individual_obj[indivial_i,:] = [12. 6. 126. 132.]
356 cord_individual_obj[indivial_i,:] = [13. 7. 115. 122.]
357 cord_individual_obj[indivial_i,:] = [14. 7. 117. 124.]
358 cord_individual_obj[indivial_i,:] = [15. 7. 110. 117.]
359 cord_individual_obj[indivial_i,:] = [16. 7. 83. 90.]
360 cord_individual_obj[indivial_i,:] = [17. 8. 109. 117.]
361 cord_individual_obj[indivial_i,:] = [18. 8. 39. 47.]
362 cord_individual_obj[indivial_i,:] = [19. 7. 73. 80.]
363 cord_individual_obj[indivial_i,:] = [20. 7. 96. 103.]
364 cord_individual_obj[indivial_i,:] = [21. 7. 128. 135.]
365 cord_individual_obj[indivial_i,:] = [22. 7. 84. 91.]
366 cord_individual_obj[indivial_i,:] = [23. 7. 96. 103.]
367 cord_individual_obj[indivial_i,:] = [24. 9. 81. 90.]
368
369 min(cord_individual_obj[:,3]) = 47.0
370 histol_G_best_iter[iter,3] = 47.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i,:] = [ 0. 7. 122. 129.]
375 cord_individual_obj[indivial_i,:] = [ 1. 9. 150. 159.]
376 cord_individual_obj[indivial_i,:] = [ 2. 7. 95. 102.]
377 cord_individual_obj[indivial_i,:] = [ 3. 7. 78. 85.]
378 cord_individual_obj[indivial_i,:] = [ 4. 8. 115. 123.]
379 cord_individual_obj[indivial_i,:] = [ 5. 8. 117. 125.]
380 cord_individual_obj[indivial_i,:] = [ 6. 8. 122. 130.]
381 cord_individual_obj[indivial_i,:] = [ 7. 6. 95. 101.]
382 cord_individual_obj[indivial_i,:] = [ 8. 8. 39. 47.]
383 cord_individual_obj[indivial_i,:] = [ 9. 7. 117. 124.]
384 cord_individual_obj[indivial_i,:] = [10. 8. 82. 90.]
385 cord_individual_obj[indivial_i,:] = [11. 6. 124. 130.]
386 cord_individual_obj[indivial_i,:] = [12. 6. 101. 107.]
387 cord_individual_obj[indivial_i,:] = [13. 7. 94. 101.]
388 cord_individual_obj[indivial_i,:] = [14. 9. 107. 116.]
389 cord_individual_obj[indivial_i,:] = [15. 8. 114. 122.]
390 cord_individual_obj[indivial_i,:] = [16. 7. 73. 80.]
391 cord_individual_obj[indivial_i,:] = [17. 6. 132. 138.]
392 cord_individual_obj[indivial_i,:] = [18. 8. 94. 102.]
393 cord_individual_obj[indivial_i,:] = [19. 7. 87. 94.]
394 cord_individual_obj[indivial_i,:] = [20. 8. 80. 88.]
395 cord_individual_obj[indivial_i,:] = [21. 7. 94. 101.]
396 cord_individual_obj[indivial_i,:] = [22. 6. 91. 97.]
397 cord_individual_obj[indivial_i,:] = [23. 6. 70. 76.]
398 cord_individual_obj[indivial_i,:] = [24. 7. 87. 94.]
399
400 min(cord_individual_obj[:,3]) = 47.0
401 histol_G_best_iter[iter,3] = 47.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i,:] = [ 0. 8. 124. 132.]
406 cord_individual_obj[indivial_i,:] = [ 1. 8. 39. 47.]
407 cord_individual_obj[indivial_i,:] = [ 2. 6. 69. 75.]
408 cord_individual_obj[indivial_i,:] = [ 3. 6. 117. 123.]
409 cord_individual_obj[indivial_i,:] = [ 4. 6. 98. 104.]
410 cord_individual_obj[indivial_i,:] = [ 5. 9. 110. 119.]
411 cord_individual_obj[indivial_i,:] = [ 6. 9. 83. 92.]
412 cord_individual_obj[indivial_i,:] = [ 7. 6. 76. 82.]
413 cord_individual_obj[indivial_i,:] = [ 8. 9. 78. 87.]
414 cord_individual_obj[indivial_i,:] = [ 9. 8. 59. 67.]
415 cord_individual_obj[indivial_i,:] = [10. 7. 53. 60.]

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416 cord_individual_obj[indivial_i,:] = [11. 7. 92. 99.]
417 cord_individual_obj[indivial_i,:] = [12. 6. 108. 114.]
418 cord_individual_obj[indivial_i,:] = [13. 7. 58. 65.]
419 cord_individual_obj[indivial_i,:] = [14. 7. 117. 124.]
420 cord_individual_obj[indivial_i,:] = [15. 6. 89. 95.]
421 cord_individual_obj[indivial_i,:] = [16. 7. 83. 90.]
422 cord_individual_obj[indivial_i,:] = [17. 7. 127. 134.]
423 cord_individual_obj[indivial_i,:] = [18. 8. 94. 102.]
424 cord_individual_obj[indivial_i,:] = [19. 7. 98. 105.]
425 cord_individual_obj[indivial_i,:] = [20. 8. 100. 108.]
426 cord_individual_obj[indivial_i,:] = [21. 7. 102. 109.]
427 cord_individual_obj[indivial_i,:] = [22. 6. 64. 70.]
428 cord_individual_obj[indivial_i,:] = [23. 7. 60. 67.]
429 cord_individual_obj[indivial_i,:] = [24. 7. 45. 52.]
430
431 min(cord_individual_obj[:,3]) = 47.0
432 histol_G_best_iter[iter,3] = 47.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [0. 8. 86. 94.]
437 cord_individual_obj[indivial_i,:] = [1. 7. 74. 81.]
438 cord_individual_obj[indivial_i,:] = [2. 9. 94. 103.]
439 cord_individual_obj[indivial_i,:] = [3. 7. 133. 140.]
440 cord_individual_obj[indivial_i,:] = [4. 9. 88. 97.]
441 cord_individual_obj[indivial_i,:] = [5. 8. 134. 142.]
442 cord_individual_obj[indivial_i,:] = [6. 7. 54. 61.]
443 cord_individual_obj[indivial_i,:] = [7. 7. 79. 86.]
444 cord_individual_obj[indivial_i,:] = [8. 8. 97. 105.]
445 cord_individual_obj[indivial_i,:] = [9. 7. 100. 107.]
446 cord_individual_obj[indivial_i,:] = [10. 8. 78. 86.]
447 cord_individual_obj[indivial_i,:] = [11. 9. 47. 56.]
448 cord_individual_obj[indivial_i,:] = [12. 7. 131. 138.]
449 cord_individual_obj[indivial_i,:] = [13. 6. 153. 159.]
450 cord_individual_obj[indivial_i,:] = [14. 8. 94. 102.]
451 cord_individual_obj[indivial_i,:] = [15. 6. 112. 118.]
452 cord_individual_obj[indivial_i,:] = [16. 7. 74. 81.]
453 cord_individual_obj[indivial_i,:] = [17. 8. 39. 47.]
454 cord_individual_obj[indivial_i,:] = [18. 6. 81. 87.]
455 cord_individual_obj[indivial_i,:] = [19. 8. 70. 78.]
456 cord_individual_obj[indivial_i,:] = [20. 6. 71. 77.]
457 cord_individual_obj[indivial_i,:] = [21. 6. 159. 165.]
458 cord_individual_obj[indivial_i,:] = [22. 8. 128. 136.]
459 cord_individual_obj[indivial_i,:] = [23. 6. 118. 124.]
460 cord_individual_obj[indivial_i,:] = [24. 8. 93. 101.]
461
462 min(cord_individual_obj[:,3]) = 47.0
463 histol_G_best_iter[iter,3] = 47.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [0. 7. 50. 57.]
468 cord_individual_obj[indivial_i,:] = [1. 7. 81. 88.]
469 cord_individual_obj[indivial_i,:] = [2. 7. 61. 68.]
470 cord_individual_obj[indivial_i,:] = [3. 7. 98. 105.]
471 cord_individual_obj[indivial_i,:] = [4. 7. 126. 133.]
472 cord_individual_obj[indivial_i,:] = [5. 8. 107. 115.]
473 cord_individual_obj[indivial_i,:] = [6. 6. 72. 78.]
474 cord_individual_obj[indivial_i,:] = [7. 6. 72. 78.]
475 cord_individual_obj[indivial_i,:] = [8. 7. 62. 69.]
476 cord_individual_obj[indivial_i,:] = [9. 8. 59. 67.]
477 cord_individual_obj[indivial_i,:] = [10. 8. 68. 76.]
478 cord_individual_obj[indivial_i,:] = [11. 9. 36. 45.]
479 cord_individual_obj[indivial_i,:] = [12. 6. 114. 120.]
480 cord_individual_obj[indivial_i,:] = [13. 6. 70. 76.]
481 cord_individual_obj[indivial_i,:] = [14. 7. 96. 103.]
482 cord_individual_obj[indivial_i,:] = [15. 6. 107. 113.]
483 cord_individual_obj[indivial_i,:] = [16. 7. 102. 109.]
484 cord_individual_obj[indivial_i,:] = [17. 7. 127. 134.]
485 cord_individual_obj[indivial_i,:] = [18. 8. 73. 81.]
486 cord_individual_obj[indivial_i,:] = [19. 8. 62. 70.]
487 cord_individual_obj[indivial_i,:] = [20. 9. 70. 79.]
488 cord_individual_obj[indivial_i,:] = [21. 8. 39. 47.]
489 cord_individual_obj[indivial_i,:] = [22. 8. 82. 90.]
490 cord_individual_obj[indivial_i,:] = [23. 6. 102. 108.]
491 cord_individual_obj[indivial_i,:] = [24. 9. 94. 103.]
492
493 min(cord_individual_obj[:,3]) = 45.0
494 histol_G_best_iter[iter,3] = 45.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [0. 6. 86. 92.]
499 cord_individual_obj[indivial_i,:] = [1. 7. 102. 109.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 8. 110. 118.]
501 cord_individual_obj[indivial_i,:] = [ 3. 7. 150. 157.]
502 cord_individual_obj[indivial_i,:] = [ 4. 8. 85. 93.]
503 cord_individual_obj[indivial_i,:] = [ 5. 7. 97. 104.]
504 cord_individual_obj[indivial_i,:] = [ 6. 9. 82. 91.]
505 cord_individual_obj[indivial_i,:] = [ 7. 6. 64. 70.]
506 cord_individual_obj[indivial_i,:] = [ 8. 6. 81. 87.]
507 cord_individual_obj[indivial_i,:] = [ 9. 7. 95. 102.]
508 cord_individual_obj[indivial_i,:] = [10. 9. 84. 93.]
509 cord_individual_obj[indivial_i,:] = [11. 7. 100. 107.]
510 cord_individual_obj[indivial_i,:] = [12. 7. 91. 98.]
511 cord_individual_obj[indivial_i,:] = [13. 7. 151. 158.]
512 cord_individual_obj[indivial_i,:] = [14. 8. 98. 106.]
513 cord_individual_obj[indivial_i,:] = [15. 7. 104. 111.]
514 cord_individual_obj[indivial_i,:] = [16. 7. 61. 68.]
515 cord_individual_obj[indivial_i,:] = [17. 9. 36. 45.]
516 cord_individual_obj[indivial_i,:] = [18. 5. 122. 127.]
517 cord_individual_obj[indivial_i,:] = [19. 9. 113. 122.]
518 cord_individual_obj[indivial_i,:] = [20. 8. 81. 89.]
519 cord_individual_obj[indivial_i,:] = [21. 6. 110. 116.]
520 cord_individual_obj[indivial_i,:] = [22. 6. 107. 113.]
521 cord_individual_obj[indivial_i,:] = [23. 6. 62. 68.]
522 cord_individual_obj[indivial_i,:] = [24. 7. 93. 100.]
523
524 min(cord_individual_obj[:, 3]) = 45.0
525 histol_G_best_iter[iter, 3] = 45.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 7. 60. 67.]
530 cord_individual_obj[indivial_i,:] = [ 1. 9. 104. 113.]
531 cord_individual_obj[indivial_i,:] = [ 2. 6. 73. 79.]
532 cord_individual_obj[indivial_i,:] = [ 3. 7. 44. 51.]
533 cord_individual_obj[indivial_i,:] = [ 4. 7. 104. 111.]
534 cord_individual_obj[indivial_i,:] = [ 5. 7. 97. 104.]
535 cord_individual_obj[indivial_i,:] = [ 6. 8. 79. 87.]
536 cord_individual_obj[indivial_i,:] = [ 7. 7. 68. 75.]
537 cord_individual_obj[indivial_i,:] = [ 8. 8. 91. 99.]
538 cord_individual_obj[indivial_i,:] = [ 9. 7. 131. 138.]
539 cord_individual_obj[indivial_i,:] = [10. 8. 93. 101.]
540 cord_individual_obj[indivial_i,:] = [11. 7. 71. 78.]
541 cord_individual_obj[indivial_i,:] = [12. 7. 88. 95.]
542 cord_individual_obj[indivial_i,:] = [13. 9. 36. 45.]
543 cord_individual_obj[indivial_i,:] = [14. 7. 109. 116.]
544 cord_individual_obj[indivial_i,:] = [15. 6. 103. 109.]
545 cord_individual_obj[indivial_i,:] = [16. 8. 62. 70.]
546 cord_individual_obj[indivial_i,:] = [17. 8. 86. 94.]
547 cord_individual_obj[indivial_i,:] = [18. 6. 184. 190.]
548 cord_individual_obj[indivial_i,:] = [19. 7. 74. 81.]
549 cord_individual_obj[indivial_i,:] = [20. 7. 88. 95.]
550 cord_individual_obj[indivial_i,:] = [21. 9. 111. 120.]
551 cord_individual_obj[indivial_i,:] = [22. 7. 138. 145.]
552 cord_individual_obj[indivial_i,:] = [23. 10. 58. 68.]
553 cord_individual_obj[indivial_i,:] = [24. 6. 92. 98.]
554
555 min(cord_individual_obj[:, 3]) = 45.0
556 histol_G_best_iter[iter, 3] = 45.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 8. 89. 97.]
561 cord_individual_obj[indivial_i,:] = [ 1. 8. 72. 80.]
562 cord_individual_obj[indivial_i,:] = [ 2. 7. 81. 88.]
563 cord_individual_obj[indivial_i,:] = [ 3. 7. 90. 97.]
564 cord_individual_obj[indivial_i,:] = [ 4. 7. 148. 155.]
565 cord_individual_obj[indivial_i,:] = [ 5. 7. 102. 109.]
566 cord_individual_obj[indivial_i,:] = [ 6. 10. 145. 155.]
567 cord_individual_obj[indivial_i,:] = [ 7. 5. 152. 157.]
568 cord_individual_obj[indivial_i,:] = [ 8. 8. 92. 100.]
569 cord_individual_obj[indivial_i,:] = [ 9. 7. 76. 83.]
570 cord_individual_obj[indivial_i,:] = [10. 7. 72. 79.]
571 cord_individual_obj[indivial_i,:] = [11. 6. 76. 82.]
572 cord_individual_obj[indivial_i,:] = [12. 6. 50. 56.]
573 cord_individual_obj[indivial_i,:] = [13. 7. 147. 154.]
574 cord_individual_obj[indivial_i,:] = [14. 9. 95. 104.]
575 cord_individual_obj[indivial_i,:] = [15. 7. 66. 73.]
576 cord_individual_obj[indivial_i,:] = [16. 7. 78. 85.]
577 cord_individual_obj[indivial_i,:] = [17. 8. 74. 82.]
578 cord_individual_obj[indivial_i,:] = [18. 9. 36. 45.]
579 cord_individual_obj[indivial_i,:] = [19. 8. 157. 165.]
580 cord_individual_obj[indivial_i,:] = [20. 9. 89. 98.]
581 cord_individual_obj[indivial_i,:] = [21. 7. 92. 99.]
582 cord_individual_obj[indivial_i,:] = [22. 7. 99. 106.]
583 cord_individual_obj[indivial_i,:] = [23. 6. 64. 70.]

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unknown

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584     cord_individual_obj[indivial_i, :] = [24. 7. 79. 86.]  
585  
586     min(cord_individual_obj[:, 3]) = 45.0  
587     historl_G_best_iter[iter, 3] = 45.0  
588 Begin iteration:  
589  
590 iter = 18  
591     cord_individual_obj[indivial_i, :] = [ 0. 7. 55. 62.]  
592     cord_individual_obj[indivial_i, :] = [ 1. 8. 88. 96.]  
593     cord_individual_obj[indivial_i, :] = [ 2. 8. 133. 141.]  
594     cord_individual_obj[indivial_i, :] = [ 3. 8. 88. 96.]  
595     cord_individual_obj[indivial_i, :] = [ 4. 7. 68. 75.]  
596     cord_individual_obj[indivial_i, :] = [ 5. 8. 71. 79.]  
597     cord_individual_obj[indivial_i, :] = [ 6. 8. 76. 84.]  
598     cord_individual_obj[indivial_i, :] = [ 7. 7. 84. 91.]  
599     cord_individual_obj[indivial_i, :] = [ 8. 7. 143. 150.]  
600     cord_individual_obj[indivial_i, :] = [ 9. 8. 90. 98.]  
601     cord_individual_obj[indivial_i, :] = [10. 8. 71. 79.]  
602     cord_individual_obj[indivial_i, :] = [11. 8. 84. 92.]  
603     cord_individual_obj[indivial_i, :] = [12. 7. 56. 63.]  
604     cord_individual_obj[indivial_i, :] = [13. 7. 39. 46.]  
605     cord_individual_obj[indivial_i, :] = [14. 8. 71. 79.]  
606     cord_individual_obj[indivial_i, :] = [15. 8. 112. 120.]  
607     cord_individual_obj[indivial_i, :] = [16. 8. 81. 89.]  
608     cord_individual_obj[indivial_i, :] = [17. 8. 65. 73.]  
609     cord_individual_obj[indivial_i, :] = [18. 7. 111. 118.]  
610     cord_individual_obj[indivial_i, :] = [19. 9. 36. 45.]  
611     cord_individual_obj[indivial_i, :] = [20. 9. 93. 102.]  
612     cord_individual_obj[indivial_i, :] = [21. 6. 172. 178.]  
613     cord_individual_obj[indivial_i, :] = [22. 7. 112. 119.]  
614     cord_individual_obj[indivial_i, :] = [23. 8. 139. 147.]  
615     cord_individual_obj[indivial_i, :] = [24. 7. 61. 68.]  
616  
617     min(cord_individual_obj[:, 3]) = 45.0  
618     historl_G_best_iter[iter, 3] = 45.0  
619 Begin iteration:  
620  
621 iter = 19  
622     cord_individual_obj[indivial_i, :] = [ 0. 7. 99. 106.]  
623     cord_individual_obj[indivial_i, :] = [ 1. 8. 134. 142.]  
624     cord_individual_obj[indivial_i, :] = [ 2. 7. 83. 90.]  
625     cord_individual_obj[indivial_i, :] = [ 3. 7. 150. 157.]  
626     cord_individual_obj[indivial_i, :] = [ 4. 6. 120. 126.]  
627     cord_individual_obj[indivial_i, :] = [ 5. 7. 64. 71.]  
628     cord_individual_obj[indivial_i, :] = [ 6. 7. 86. 93.]  
629     cord_individual_obj[indivial_i, :] = [ 7. 7. 89. 96.]  
630     cord_individual_obj[indivial_i, :] = [ 8. 7. 75. 82.]  
631     cord_individual_obj[indivial_i, :] = [ 9. 6. 94. 100.]  
632     cord_individual_obj[indivial_i, :] = [10. 7. 100. 107.]  
633     cord_individual_obj[indivial_i, :] = [11. 7. 99. 106.]  
634     cord_individual_obj[indivial_i, :] = [12. 7. 61. 68.]  
635     cord_individual_obj[indivial_i, :] = [13. 7. 147. 154.]  
636     cord_individual_obj[indivial_i, :] = [14. 7. 129. 136.]  
637     cord_individual_obj[indivial_i, :] = [15. 7. 90. 97.]  
638     cord_individual_obj[indivial_i, :] = [16. 7. 66. 73.]  
639     cord_individual_obj[indivial_i, :] = [17. 7. 99. 106.]  
640     cord_individual_obj[indivial_i, :] = [18. 7. 111. 118.]  
641     cord_individual_obj[indivial_i, :] = [19. 9. 72. 81.]  
642     cord_individual_obj[indivial_i, :] = [20. 7. 76. 83.]  
643     cord_individual_obj[indivial_i, :] = [21. 9. 36. 45.]  
644     cord_individual_obj[indivial_i, :] = [22. 7. 150. 157.]  
645     cord_individual_obj[indivial_i, :] = [23. 8. 124. 132.]  
646     cord_individual_obj[indivial_i, :] = [24. 8. 93. 101.]  
647  
648     min(cord_individual_obj[:, 3]) = 45.0  
649     historl_G_best_iter[iter, 3] = 45.0  
650 Begin iteration:  
651  
652 iter = 20  
653     cord_individual_obj[indivial_i, :] = [ 0. 7. 64. 71.]  
654     cord_individual_obj[indivial_i, :] = [ 1. 9. 104. 113.]  
655     cord_individual_obj[indivial_i, :] = [ 2. 8. 118. 126.]  
656     cord_individual_obj[indivial_i, :] = [ 3. 9. 36. 45.]  
657     cord_individual_obj[indivial_i, :] = [ 4. 8. 103. 111.]  
658     cord_individual_obj[indivial_i, :] = [ 5. 7. 109. 116.]  
659     cord_individual_obj[indivial_i, :] = [ 6. 8. 157. 165.]  
660     cord_individual_obj[indivial_i, :] = [ 7. 7. 50. 57.]  
661     cord_individual_obj[indivial_i, :] = [ 8. 8. 119. 127.]  
662     cord_individual_obj[indivial_i, :] = [ 9. 7. 149. 156.]  
663     cord_individual_obj[indivial_i, :] = [10. 7. 56. 63.]  
664     cord_individual_obj[indivial_i, :] = [11. 7. 95. 102.]  
665     cord_individual_obj[indivial_i, :] = [12. 7. 90. 97.]  
666     cord_individual_obj[indivial_i, :] = [13. 8. 82. 90.]  
667     cord_individual_obj[indivial_i, :] = [14. 7. 115. 122.]
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668 cord_individual_obj[indivial_i,:] = [15. 9. 52. 61.]
669 cord_individual_obj[indivial_i,:] = [16. 8. 86. 94.]
670 cord_individual_obj[indivial_i,:] = [17. 9. 63. 72.]
671 cord_individual_obj[indivial_i,:] = [18. 10. 192. 202.]
672 cord_individual_obj[indivial_i,:] = [19. 8. 117. 125.]
673 cord_individual_obj[indivial_i,:] = [20. 9. 84. 93.]
674 cord_individual_obj[indivial_i,:] = [21. 7. 110. 117.]
675 cord_individual_obj[indivial_i,:] = [22. 8. 173. 181.]
676 cord_individual_obj[indivial_i,:] = [23. 9. 91. 100.]
677 cord_individual_obj[indivial_i,:] = [24. 8. 87. 95.]
678
679 min(cord_individual_obj[:, 3]) = 45.0
680 historl_G_best_iter[iter, 3] = 45.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 164.0
689 Proportion_of_area = 0.15185185185185185
690 BEST_CHROM =
691 berth: [ 6. 2. 11.5 4.5 18. 6. 21. 10.5 1.5 24. 15.5 21. 14.5 24.5]
692 time: [0. 0. 3. 4. 0. 2. 6. 0. 2. 1. 3. 4. 0. 0.]
693 num_QC: [4. 2. 4. 3. 3. 3. 2. 4. 3. 3. 3. 5. 1. 7.]
694 Objective function values and some other indicators:
695 Obj0 = 9.00 Obj1 = 36.00 Obj0 + Obj1 = 45.00
696 Total movement of crane: 0.00
697 Total waiting time in berth position: 25.00
698 Total index of q during berthing: 826.00
699 Specific arrangement for each vessel:
700 V_id: 0 li: 4.0 xi: 6.0 bow of i: 4.0 tail of i: 8.0 gama_i0: 0.0 gama_i1: 1.0
701 160.0 work load gap_i: 0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 160.0 work load_i:
702 V_id: 1 li: 4.0 xi: 2.0 bow of i: 0.0 tail of i: 4.0 gama_i0: 0.0 gama_i1: 1.0
703 60.0 work load gap_i: 0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 60.0 work load_i:
704 V_id: 2 .0 li: 5.0 xi: 11.5 bow of i: 9.0 tail of i: 14.0 gama_i0: 3.0 gama_i1: 4
705 load_i: 140.0 work load gap_i: 0 gama_i1 + 1: 5.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 140.0 work
706 V_id: 3 120.0 li: 9.0 xi: 4.5 bow of i: 0.0 tail of i: 9.0 gama_i0: 4.0 gama_i1: 5
707 load_i: 120.0 work load gap_i: 0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work load_i:
708 V_id: 4 .0 li: 4.0 xi: 18.0 bow of i: 16.0 tail of i: 20.0 gama_i0: 0.0 gama_i1: 0
709 load_i: 60.0 work load gap_i: 0 gama_i1 + 1: 1.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work
710 V_id: 5 80.0 li: 6.0 xi: 6.0 bow of i: 3.0 tail of i: 9.0 gama_i0: 2.0 gama_i1: 3
711 load_i: 80.0 work load gap_i: 0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work load_i:
712 V_id: 6 160.0 li: 8.0 xi: 21.0 bow of i: 17.0 tail of i: 25.0 gama_i0: 6.0 gama_i1: 9
713 load_i: 160.0 work load gap_i: 0 gama_i1 + 1: 10.0 gama_i1 - gama_i0: 3.0 duration_time_i: 4.0 demand_i: 160.0 work
714 V_id: 7 .0 li: 5.0 xi: 10.5 bow of i: 8.0 tail of i: 13.0 gama_i0: 0.0 gama_i1: 0
715 load_i: 60.0 work load gap_i: 0 gama_i1 + 1: 1.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work
716 V_id: 8 120.0 li: 3.0 xi: 1.5 bow of i: 0.0 tail of i: 3.0 gama_i0: 2.0 gama_i1: 3
717 load_i: 120.0 work load gap_i: 0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work load_i:
718 V_id: 9 .0 li: 8.0 xi: 24.0 bow of i: 20.0 tail of i: 28.0 gama_i0: 1.0 gama_i1: 3
719 load_i: 140.0 work load gap_i: 0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 140.0 work
720 V_id: 10 : 5.0 li: 3.0 xi: 15.5 bow of i: 14.0 tail of i: 17.0 gama_i0: 3.0 gama_i1: 1
721 load_i: 140.0 work load gap_i: 0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 140.0 work
722 V_id: 11 : 5.0 li: 8.0 xi: 21.0 bow of i: 17.0 tail of i: 25.0 gama_i0: 4.0 gama_i1: 1
723 load_i: 120.0 work load gap_i: 0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work
724 V_id: 12 : 2.0 li: 3.0 xi: 14.5 bow of i: 13.0 tail of i: 16.0 gama_i0: 0.0 gama_i1: 1
725 load_i: 60.0 work load gap_i: 0 gama_i1 + 1: 3.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 60.0 work
726 V_id: 13 : 0.0 li: 9.0 xi: 24.5 bow of i: 20.0 tail of i: 29.0 gama_i0: 0.0 gama_i1: 1
727 load_i: 60.0 work load gap_i: 0 gama_i1 + 1: 1.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work
728
729 Algorithm finished and the total CPU time: 376 s
730 End
731
732

```