

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 8. 149. 157.]
81 cord_individual_obj[indivial_i,:] = [ 17. 8. 98. 106.]
82 cord_individual_obj[indivial_i,:] = [ 18. 9. 162. 171.]
83 cord_individual_obj[indivial_i,:] = [ 19. 11. 116. 127.]
84 cord_individual_obj[indivial_i,:] = [ 20. 9. 118. 127.]
85 cord_individual_obj[indivial_i,:] = [ 21. 12. 136. 148.]
86 cord_individual_obj[indivial_i,:] = [ 22. 10. 147. 157.]
87 cord_individual_obj[indivial_i,:] = [ 23. 8. 143. 151.]
88 cord_individual_obj[indivial_i,:] = [ 24. 9. 67. 76.]
89
90 min(cord_individual_obj[:,3]) = 74.0
91 historl_G_best_iter[iter, 3] = 74.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 9. 131. 140.]
96 cord_individual_obj[indivial_i,:] = [ 1. 8. 120. 128.]
97 cord_individual_obj[indivial_i,:] = [ 2. 8. 118. 126.]
98 cord_individual_obj[indivial_i,:] = [ 3. 7. 116. 123.]
99 cord_individual_obj[indivial_i,:] = [ 4. 10. 64. 74.]
100 cord_individual_obj[indivial_i,:] = [ 5. 8. 145. 153.]
101 cord_individual_obj[indivial_i,:] = [ 6. 9. 111. 120.]
102 cord_individual_obj[indivial_i,:] = [ 7. 8. 165. 173.]
103 cord_individual_obj[indivial_i,:] = [ 8. 10. 86. 96.]
104 cord_individual_obj[indivial_i,:] = [ 9. 9. 145. 154.]
105 cord_individual_obj[indivial_i,:] = [ 10. 9. 114. 123.]
106 cord_individual_obj[indivial_i,:] = [ 11. 9. 87. 96.]
107 cord_individual_obj[indivial_i,:] = [ 12. 8. 178. 186.]
108 cord_individual_obj[indivial_i,:] = [ 13. 9. 71. 80.]
109 cord_individual_obj[indivial_i,:] = [ 14. 7. 156. 163.]
110 cord_individual_obj[indivial_i,:] = [ 15. 8. 110. 118.]
111 cord_individual_obj[indivial_i,:] = [ 16. 8. 157. 165.]
112 cord_individual_obj[indivial_i,:] = [ 17. 8. 127. 135.]
113 cord_individual_obj[indivial_i,:] = [ 18. 9. 94. 103.]
114 cord_individual_obj[indivial_i,:] = [ 19. 9. 118. 127.]
115 cord_individual_obj[indivial_i,:] = [ 20. 8. 94. 102.]
116 cord_individual_obj[indivial_i,:] = [ 21. 8. 82. 90.]
117 cord_individual_obj[indivial_i,:] = [ 22. 9. 124. 133.]
118 cord_individual_obj[indivial_i,:] = [ 23. 9. 65. 74.]
119 cord_individual_obj[indivial_i,:] = [ 24. 8. 154. 162.]
120
121 min(cord_individual_obj[:,3]) = 74.0
122 historl_G_best_iter[iter, 3] = 74.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 8. 111. 119.]
127 cord_individual_obj[indivial_i,:] = [ 1. 10. 126. 136.]
128 cord_individual_obj[indivial_i,:] = [ 2. 7. 68. 75.]
129 cord_individual_obj[indivial_i,:] = [ 3. 8. 77. 85.]
130 cord_individual_obj[indivial_i,:] = [ 4. 9. 91. 100.]
131 cord_individual_obj[indivial_i,:] = [ 5. 9. 125. 134.]
132 cord_individual_obj[indivial_i,:] = [ 6. 9. 67. 76.]
133 cord_individual_obj[indivial_i,:] = [ 7. 9. 152. 161.]
134 cord_individual_obj[indivial_i,:] = [ 8. 9. 75. 84.]
135 cord_individual_obj[indivial_i,:] = [ 9. 10. 83. 93.]
136 cord_individual_obj[indivial_i,:] = [ 10. 7. 109. 116.]
137 cord_individual_obj[indivial_i,:] = [ 11. 8. 133. 141.]
138 cord_individual_obj[indivial_i,:] = [ 12. 10. 64. 74.]
139 cord_individual_obj[indivial_i,:] = [ 13. 10. 81. 91.]
140 cord_individual_obj[indivial_i,:] = [ 14. 8. 137. 145.]
141 cord_individual_obj[indivial_i,:] = [ 15. 8. 107. 115.]
142 cord_individual_obj[indivial_i,:] = [ 16. 8. 107. 115.]
143 cord_individual_obj[indivial_i,:] = [ 17. 9. 122. 131.]
144 cord_individual_obj[indivial_i,:] = [ 18. 11. 104. 115.]
145 cord_individual_obj[indivial_i,:] = [ 19. 7. 116. 123.]
146 cord_individual_obj[indivial_i,:] = [ 20. 9. 129. 138.]
147 cord_individual_obj[indivial_i,:] = [ 21. 10. 138. 148.]
148 cord_individual_obj[indivial_i,:] = [ 22. 8. 99. 107.]
149 cord_individual_obj[indivial_i,:] = [ 23. 8. 85. 93.]
150 cord_individual_obj[indivial_i,:] = [ 24. 10. 104. 114.]
151
152 min(cord_individual_obj[:,3]) = 74.0
153 historl_G_best_iter[iter, 3] = 74.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 8. 82. 90.]
158 cord_individual_obj[indivial_i,:] = [ 1. 8. 181. 189.]
159 cord_individual_obj[indivial_i,:] = [ 2. 8. 119. 127.]
160 cord_individual_obj[indivial_i,:] = [ 3. 9. 242. 251.]
161 cord_individual_obj[indivial_i,:] = [ 4. 8. 98. 106.]
162 cord_individual_obj[indivial_i,:] = [ 5. 9. 94. 103.]
163 cord_individual_obj[indivial_i,:] = [ 6. 9. 203. 212.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 10. 64. 74.]
165 cord_individual_obj[indivial_i,:] = [ 8. 9. 65. 74.]
166 cord_individual_obj[indivial_i,:] = [ 9. 8. 113. 121.]
167 cord_individual_obj[indivial_i,:] = [ 10. 9. 92. 101.]
168 cord_individual_obj[indivial_i,:] = [ 11. 8. 125. 133.]
169 cord_individual_obj[indivial_i,:] = [ 12. 10. 102. 112.]
170 cord_individual_obj[indivial_i,:] = [ 13. 8. 107. 115.]
171 cord_individual_obj[indivial_i,:] = [ 14. 7. 155. 162.]
172 cord_individual_obj[indivial_i,:] = [ 15. 8. 114. 122.]
173 cord_individual_obj[indivial_i,:] = [ 16. 8. 97. 105.]
174 cord_individual_obj[indivial_i,:] = [ 17. 9. 173. 182.]
175 cord_individual_obj[indivial_i,:] = [ 18. 8. 125. 133.]
176 cord_individual_obj[indivial_i,:] = [ 19. 9. 143. 152.]
177 cord_individual_obj[indivial_i,:] = [ 20. 10. 127. 137.]
178 cord_individual_obj[indivial_i,:] = [ 21. 9. 89. 98.]
179 cord_individual_obj[indivial_i,:] = [ 22. 9. 82. 91.]
180 cord_individual_obj[indivial_i,:] = [ 23. 8. 90. 98.]
181 cord_individual_obj[indivial_i,:] = [ 24. 9. 206. 215.]
182
183 min(cord_individual_obj[:,3]) = 74.0
184 historl_G_best_iter[iter, 3] = 74.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 9. 62. 71.]
189 cord_individual_obj[indivial_i,:] = [ 1. 8. 126. 134.]
190 cord_individual_obj[indivial_i,:] = [ 2. 8. 94. 102.]
191 cord_individual_obj[indivial_i,:] = [ 3. 10. 64. 74.]
192 cord_individual_obj[indivial_i,:] = [ 4. 11. 114. 125.]
193 cord_individual_obj[indivial_i,:] = [ 5. 9. 74. 83.]
194 cord_individual_obj[indivial_i,:] = [ 6. 9. 122. 131.]
195 cord_individual_obj[indivial_i,:] = [ 7. 8. 78. 86.]
196 cord_individual_obj[indivial_i,:] = [ 8. 12. 93. 105.]
197 cord_individual_obj[indivial_i,:] = [ 9. 8. 78. 86.]
198 cord_individual_obj[indivial_i,:] = [10. 7. 81. 88.]
199 cord_individual_obj[indivial_i,:] = [11. 10. 158. 168.]
200 cord_individual_obj[indivial_i,:] = [12. 10. 120. 130.]
201 cord_individual_obj[indivial_i,:] = [13. 10. 127. 137.]
202 cord_individual_obj[indivial_i,:] = [14. 8. 132. 140.]
203 cord_individual_obj[indivial_i,:] = [15. 8. 138. 146.]
204 cord_individual_obj[indivial_i,:] = [16. 11. 125. 136.]
205 cord_individual_obj[indivial_i,:] = [17. 10. 152. 162.]
206 cord_individual_obj[indivial_i,:] = [18. 7. 80. 87.]
207 cord_individual_obj[indivial_i,:] = [19. 9. 104. 113.]
208 cord_individual_obj[indivial_i,:] = [20. 11. 92. 103.]
209 cord_individual_obj[indivial_i,:] = [21. 9. 105. 114.]
210 cord_individual_obj[indivial_i,:] = [22. 10. 86. 96.]
211 cord_individual_obj[indivial_i,:] = [23. 8. 96. 104.]
212 cord_individual_obj[indivial_i,:] = [24. 11. 75. 86.]
213
214 min(cord_individual_obj[:,3]) = 71.0
215 historl_G_best_iter[iter, 3] = 71.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 9. 66. 75.]
220 cord_individual_obj[indivial_i,:] = [ 1. 7. 78. 85.]
221 cord_individual_obj[indivial_i,:] = [ 2. 8. 93. 101.]
222 cord_individual_obj[indivial_i,:] = [ 3. 9. 116. 125.]
223 cord_individual_obj[indivial_i,:] = [ 4. 9. 161. 170.]
224 cord_individual_obj[indivial_i,:] = [ 5. 9. 87. 96.]
225 cord_individual_obj[indivial_i,:] = [ 6. 9. 134. 143.]
226 cord_individual_obj[indivial_i,:] = [ 7. 9. 120. 129.]
227 cord_individual_obj[indivial_i,:] = [ 8. 10. 100. 110.]
228 cord_individual_obj[indivial_i,:] = [ 9. 9. 162. 171.]
229 cord_individual_obj[indivial_i,:] = [10. 8. 89. 97.]
230 cord_individual_obj[indivial_i,:] = [11. 9. 62. 71.]
231 cord_individual_obj[indivial_i,:] = [12. 9. 128. 137.]
232 cord_individual_obj[indivial_i,:] = [13. 9. 113. 122.]
233 cord_individual_obj[indivial_i,:] = [14. 8. 104. 112.]
234 cord_individual_obj[indivial_i,:] = [15. 8. 112. 120.]
235 cord_individual_obj[indivial_i,:] = [16. 9. 195. 204.]
236 cord_individual_obj[indivial_i,:] = [17. 9. 131. 140.]
237 cord_individual_obj[indivial_i,:] = [18. 9. 122. 131.]
238 cord_individual_obj[indivial_i,:] = [19. 9. 164. 173.]
239 cord_individual_obj[indivial_i,:] = [20. 9. 111. 120.]
240 cord_individual_obj[indivial_i,:] = [21. 10. 82. 92.]
241 cord_individual_obj[indivial_i,:] = [22. 8. 91. 99.]
242 cord_individual_obj[indivial_i,:] = [23. 9. 198. 207.]
243 cord_individual_obj[indivial_i,:] = [24. 8. 126. 134.]
244
245 min(cord_individual_obj[:,3]) = 71.0
246 historl_G_best_iter[iter, 3] = 71.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 9. 111. 120.]
251 cord_individual_obj[indivial_i, :] = [ 1. 8. 98. 106.]
252 cord_individual_obj[indivial_i, :] = [ 2. 10. 204. 214.]
253 cord_individual_obj[indivial_i, :] = [ 3. 7. 151. 158.]
254 cord_individual_obj[indivial_i, :] = [ 4. 8. 142. 150.]
255 cord_individual_obj[indivial_i, :] = [ 5. 9. 121. 130.]
256 cord_individual_obj[indivial_i, :] = [ 6. 9. 141. 150.]
257 cord_individual_obj[indivial_i, :] = [ 7. 10. 206. 216.]
258 cord_individual_obj[indivial_i, :] = [ 8. 9. 110. 119.]
259 cord_individual_obj[indivial_i, :] = [ 9. 8. 156. 164.]
260 cord_individual_obj[indivial_i, :] = [10. 7. 92. 99.]
261 cord_individual_obj[indivial_i, :] = [11. 10. 77. 87.]
262 cord_individual_obj[indivial_i, :] = [12. 9. 126. 135.]
263 cord_individual_obj[indivial_i, :] = [13. 8. 100. 108.]
264 cord_individual_obj[indivial_i, :] = [14. 8. 93. 101.]
265 cord_individual_obj[indivial_i, :] = [15. 10. 143. 153.]
266 cord_individual_obj[indivial_i, :] = [16. 8. 120. 128.]
267 cord_individual_obj[indivial_i, :] = [17. 8. 104. 112.]
268 cord_individual_obj[indivial_i, :] = [18. 10. 134. 144.]
269 cord_individual_obj[indivial_i, :] = [19. 9. 150. 159.]
270 cord_individual_obj[indivial_i, :] = [20. 9. 133. 142.]
271 cord_individual_obj[indivial_i, :] = [21. 9. 59. 68.]
272 cord_individual_obj[indivial_i, :] = [22. 11. 124. 135.]
273 cord_individual_obj[indivial_i, :] = [23. 9. 62. 71.]
274 cord_individual_obj[indivial_i, :] = [24. 10. 210. 220.]
275

276 min(cord_individual_obj[:, 3]) = 68.0
277 historl_G_best_iter[iter, 3] = 68.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 9. 92. 101.]
282 cord_individual_obj[indivial_i, :] = [ 1. 8. 134. 142.]
283 cord_individual_obj[indivial_i, :] = [ 2. 9. 114. 123.]
284 cord_individual_obj[indivial_i, :] = [ 3. 9. 94. 103.]
285 cord_individual_obj[indivial_i, :] = [ 4. 8. 116. 124.]
286 cord_individual_obj[indivial_i, :] = [ 5. 7. 80. 87.]
287 cord_individual_obj[indivial_i, :] = [ 6. 8. 111. 119.]
288 cord_individual_obj[indivial_i, :] = [ 7. 7. 107. 114.]
289 cord_individual_obj[indivial_i, :] = [ 8. 9. 128. 137.]
290 cord_individual_obj[indivial_i, :] = [ 9. 9. 79. 88.]
291 cord_individual_obj[indivial_i, :] = [10. 8. 108. 116.]
292 cord_individual_obj[indivial_i, :] = [11. 9. 128. 137.]
293 cord_individual_obj[indivial_i, :] = [12. 9. 103. 112.]
294 cord_individual_obj[indivial_i, :] = [13. 8. 67. 75.]
295 cord_individual_obj[indivial_i, :] = [14. 8. 99. 107.]
296 cord_individual_obj[indivial_i, :] = [15. 8. 73. 81.]
297 cord_individual_obj[indivial_i, :] = [16. 8. 118. 126.]
298 cord_individual_obj[indivial_i, :] = [17. 10. 118. 128.]
299 cord_individual_obj[indivial_i, :] = [18. 8. 80. 88.]
300 cord_individual_obj[indivial_i, :] = [19. 10. 84. 94.]
301 cord_individual_obj[indivial_i, :] = [20. 7. 152. 159.]
302 cord_individual_obj[indivial_i, :] = [21. 8. 120. 128.]
303 cord_individual_obj[indivial_i, :] = [22. 7. 147. 154.]
304 cord_individual_obj[indivial_i, :] = [23. 9. 202. 211.]
305 cord_individual_obj[indivial_i, :] = [24. 9. 59. 68.]
306

307 min(cord_individual_obj[:, 3]) = 68.0
308 historl_G_best_iter[iter, 3] = 68.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 9. 85. 94.]
313 cord_individual_obj[indivial_i, :] = [ 1. 7. 119. 126.]
314 cord_individual_obj[indivial_i, :] = [ 2. 9. 90. 99.]
315 cord_individual_obj[indivial_i, :] = [ 3. 9. 82. 91.]
316 cord_individual_obj[indivial_i, :] = [ 4. 9. 94. 103.]
317 cord_individual_obj[indivial_i, :] = [ 5. 8. 92. 100.]
318 cord_individual_obj[indivial_i, :] = [ 6. 9. 75. 84.]
319 cord_individual_obj[indivial_i, :] = [ 7. 9. 120. 129.]
320 cord_individual_obj[indivial_i, :] = [ 8. 8. 161. 169.]
321 cord_individual_obj[indivial_i, :] = [ 9. 8. 118. 126.]
322 cord_individual_obj[indivial_i, :] = [10. 8. 113. 121.]
323 cord_individual_obj[indivial_i, :] = [11. 9. 136. 145.]
324 cord_individual_obj[indivial_i, :] = [12. 9. 81. 90.]
325 cord_individual_obj[indivial_i, :] = [13. 9. 66. 75.]
326 cord_individual_obj[indivial_i, :] = [14. 8. 97. 105.]
327 cord_individual_obj[indivial_i, :] = [15. 10. 79. 89.]
328 cord_individual_obj[indivial_i, :] = [16. 8. 151. 159.]
329 cord_individual_obj[indivial_i, :] = [17. 9. 111. 120.]
330 cord_individual_obj[indivial_i, :] = [18. 9. 103. 112.]
331 cord_individual_obj[indivial_i, :] = [19. 9. 131. 140.]

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332 cord_individual_obj[indivial_i, :] = [20. 8. 85. 93.]
333 cord_individual_obj[indivial_i, :] = [21. 8. 82. 90.]
334 cord_individual_obj[indivial_i, :] = [22. 7. 94. 101.]
335 cord_individual_obj[indivial_i, :] = [23. 9. 59. 68.]
336 cord_individual_obj[indivial_i, :] = [24. 9. 73. 82.]
337
338 min(cord_individual_obj[:, 3]) = 68.0
339 histol_G_best_iter[iter, 3] = 68.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 10. 82. 92.]
344 cord_individual_obj[indivial_i, :] = [ 1. 9. 99. 108.]
345 cord_individual_obj[indivial_i, :] = [ 2. 8. 141. 149.]
346 cord_individual_obj[indivial_i, :] = [ 3. 7. 136. 143.]
347 cord_individual_obj[indivial_i, :] = [ 4. 9. 108. 117.]
348 cord_individual_obj[indivial_i, :] = [ 5. 9. 153. 162.]
349 cord_individual_obj[indivial_i, :] = [ 6. 10. 108. 118.]
350 cord_individual_obj[indivial_i, :] = [ 7. 9. 167. 176.]
351 cord_individual_obj[indivial_i, :] = [ 8. 9. 59. 68.]
352 cord_individual_obj[indivial_i, :] = [ 9. 7. 152. 159.]
353 cord_individual_obj[indivial_i, :] = [10. 7. 198. 205.]
354 cord_individual_obj[indivial_i, :] = [11. 8. 231. 239.]
355 cord_individual_obj[indivial_i, :] = [12. 10. 128. 138.]
356 cord_individual_obj[indivial_i, :] = [13. 10. 84. 94.]
357 cord_individual_obj[indivial_i, :] = [14. 9. 82. 91.]
358 cord_individual_obj[indivial_i, :] = [15. 7. 106. 113.]
359 cord_individual_obj[indivial_i, :] = [16. 10. 128. 138.]
360 cord_individual_obj[indivial_i, :] = [17. 10. 112. 122.]
361 cord_individual_obj[indivial_i, :] = [18. 8. 95. 103.]
362 cord_individual_obj[indivial_i, :] = [19. 8. 133. 141.]
363 cord_individual_obj[indivial_i, :] = [20. 8. 68. 76.]
364 cord_individual_obj[indivial_i, :] = [21. 8. 90. 98.]
365 cord_individual_obj[indivial_i, :] = [22. 9. 99. 108.]
366 cord_individual_obj[indivial_i, :] = [23. 9. 142. 151.]
367 cord_individual_obj[indivial_i, :] = [24. 9. 114. 123.]
368
369 min(cord_individual_obj[:, 3]) = 68.0
370 histol_G_best_iter[iter, 3] = 68.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 8. 84. 92.]
375 cord_individual_obj[indivial_i, :] = [ 1. 7. 98. 105.]
376 cord_individual_obj[indivial_i, :] = [ 2. 9. 120. 129.]
377 cord_individual_obj[indivial_i, :] = [ 3. 9. 85. 94.]
378 cord_individual_obj[indivial_i, :] = [ 4. 9. 98. 107.]
379 cord_individual_obj[indivial_i, :] = [ 5. 10. 98. 108.]
380 cord_individual_obj[indivial_i, :] = [ 6. 8. 95. 103.]
381 cord_individual_obj[indivial_i, :] = [ 7. 7. 144. 151.]
382 cord_individual_obj[indivial_i, :] = [ 8. 8. 124. 132.]
383 cord_individual_obj[indivial_i, :] = [ 9. 9. 70. 79.]
384 cord_individual_obj[indivial_i, :] = [10. 7. 131. 138.]
385 cord_individual_obj[indivial_i, :] = [11. 9. 59. 68.]
386 cord_individual_obj[indivial_i, :] = [12. 8. 109. 117.]
387 cord_individual_obj[indivial_i, :] = [13. 10. 78. 88.]
388 cord_individual_obj[indivial_i, :] = [14. 9. 112. 121.]
389 cord_individual_obj[indivial_i, :] = [15. 8. 116. 124.]
390 cord_individual_obj[indivial_i, :] = [16. 9. 154. 163.]
391 cord_individual_obj[indivial_i, :] = [17. 8. 117. 125.]
392 cord_individual_obj[indivial_i, :] = [18. 7. 104. 111.]
393 cord_individual_obj[indivial_i, :] = [19. 8. 122. 130.]
394 cord_individual_obj[indivial_i, :] = [20. 10. 127. 137.]
395 cord_individual_obj[indivial_i, :] = [21. 10. 87. 97.]
396 cord_individual_obj[indivial_i, :] = [22. 10. 174. 184.]
397 cord_individual_obj[indivial_i, :] = [23. 10. 103. 113.]
398 cord_individual_obj[indivial_i, :] = [24. 9. 113. 122.]
399
400 min(cord_individual_obj[:, 3]) = 68.0
401 histol_G_best_iter[iter, 3] = 68.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0. 8. 111. 119.]
406 cord_individual_obj[indivial_i, :] = [ 1. 9. 76. 85.]
407 cord_individual_obj[indivial_i, :] = [ 2. 9. 84. 93.]
408 cord_individual_obj[indivial_i, :] = [ 3. 8. 101. 109.]
409 cord_individual_obj[indivial_i, :] = [ 4. 8. 86. 94.]
410 cord_individual_obj[indivial_i, :] = [ 5. 10. 98. 108.]
411 cord_individual_obj[indivial_i, :] = [ 6. 8. 105. 113.]
412 cord_individual_obj[indivial_i, :] = [ 7. 10. 96. 106.]
413 cord_individual_obj[indivial_i, :] = [ 8. 8. 118. 126.]
414 cord_individual_obj[indivial_i, :] = [ 9. 7. 115. 122.]
415 cord_individual_obj[indivial_i, :] = [10. 8. 109. 117.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 9. 108. 117.]
417 cord_individual_obj[indivial_i,:] = [12. 8. 71. 79.]
418 cord_individual_obj[indivial_i,:] = [13. 9. 75. 84.]
419 cord_individual_obj[indivial_i,:] = [ 14. 10. 119. 129.]
420 cord_individual_obj[indivial_i,:] = [ 15. 8. 92. 100.]
421 cord_individual_obj[indivial_i,:] = [ 16. 8. 97. 105.]
422 cord_individual_obj[indivial_i,:] = [ 17. 8. 164. 172.]
423 cord_individual_obj[indivial_i,:] = [18. 9. 59. 68.]
424 cord_individual_obj[indivial_i,:] = [19. 8. 102. 110.]
425 cord_individual_obj[indivial_i,:] = [20. 8. 84. 92.]
426 cord_individual_obj[indivial_i,:] = [21. 8. 83. 91.]
427 cord_individual_obj[indivial_i,:] = [22. 9. 59. 68.]
428 cord_individual_obj[indivial_i,:] = [23. 9. 107. 116.]
429 cord_individual_obj[indivial_i,:] = [24. 9. 75. 84.]
430
431 min(cord_individual_obj[:,3]) = 68.0
432 histol_G_best_iter[iter,3] = 68.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 10. 180. 190.]
437 cord_individual_obj[indivial_i,:] = [ 1. 6. 175. 181.]
438 cord_individual_obj[indivial_i,:] = [ 2. 8. 127. 135.]
439 cord_individual_obj[indivial_i,:] = [ 3. 7. 116. 123.]
440 cord_individual_obj[indivial_i,:] = [ 4. 10. 114. 124.]
441 cord_individual_obj[indivial_i,:] = [ 5. 8. 130. 138.]
442 cord_individual_obj[indivial_i,:] = [ 6. 8. 104. 112.]
443 cord_individual_obj[indivial_i,:] = [ 7. 7. 92. 99.]
444 cord_individual_obj[indivial_i,:] = [ 8. 9. 79. 88.]
445 cord_individual_obj[indivial_i,:] = [ 9. 9. 147. 156.]
446 cord_individual_obj[indivial_i,:] = [10. 10. 160. 170.]
447 cord_individual_obj[indivial_i,:] = [11. 10. 99. 109.]
448 cord_individual_obj[indivial_i,:] = [12. 9. 176. 185.]
449 cord_individual_obj[indivial_i,:] = [13. 9. 115. 124.]
450 cord_individual_obj[indivial_i,:] = [14. 10. 107. 117.]
451 cord_individual_obj[indivial_i,:] = [15. 8. 138. 146.]
452 cord_individual_obj[indivial_i,:] = [16. 9. 125. 134.]
453 cord_individual_obj[indivial_i,:] = [17. 9. 59. 68.]
454 cord_individual_obj[indivial_i,:] = [18. 9. 132. 141.]
455 cord_individual_obj[indivial_i,:] = [19. 9. 104. 113.]
456 cord_individual_obj[indivial_i,:] = [20. 9. 92. 101.]
457 cord_individual_obj[indivial_i,:] = [21. 9. 106. 115.]
458 cord_individual_obj[indivial_i,:] = [22. 8. 158. 166.]
459 cord_individual_obj[indivial_i,:] = [23. 9. 134. 143.]
460 cord_individual_obj[indivial_i,:] = [24. 9. 94. 103.]
461
462 min(cord_individual_obj[:,3]) = 68.0
463 histol_G_best_iter[iter,3] = 68.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 9. 59. 68.]
468 cord_individual_obj[indivial_i,:] = [ 1. 8. 133. 141.]
469 cord_individual_obj[indivial_i,:] = [ 2. 9. 105. 114.]
470 cord_individual_obj[indivial_i,:] = [ 3. 8. 132. 140.]
471 cord_individual_obj[indivial_i,:] = [ 4. 9. 131. 140.]
472 cord_individual_obj[indivial_i,:] = [ 5. 7. 118. 125.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 129. 137.]
474 cord_individual_obj[indivial_i,:] = [ 7. 7. 138. 145.]
475 cord_individual_obj[indivial_i,:] = [ 8. 9. 146. 155.]
476 cord_individual_obj[indivial_i,:] = [ 9. 9. 126. 135.]
477 cord_individual_obj[indivial_i,:] = [10. 7. 147. 154.]
478 cord_individual_obj[indivial_i,:] = [11. 9. 187. 196.]
479 cord_individual_obj[indivial_i,:] = [12. 10. 118. 128.]
480 cord_individual_obj[indivial_i,:] = [13. 9. 130. 139.]
481 cord_individual_obj[indivial_i,:] = [14. 9. 127. 136.]
482 cord_individual_obj[indivial_i,:] = [15. 8. 123. 131.]
483 cord_individual_obj[indivial_i,:] = [16. 11. 126. 137.]
484 cord_individual_obj[indivial_i,:] = [17. 9. 126. 135.]
485 cord_individual_obj[indivial_i,:] = [18. 11. 104. 115.]
486 cord_individual_obj[indivial_i,:] = [19. 9. 100. 109.]
487 cord_individual_obj[indivial_i,:] = [20. 10. 119. 129.]
488 cord_individual_obj[indivial_i,:] = [21. 9. 89. 98.]
489 cord_individual_obj[indivial_i,:] = [22. 8. 73. 81.]
490 cord_individual_obj[indivial_i,:] = [23. 9. 142. 151.]
491 cord_individual_obj[indivial_i,:] = [24. 9. 131. 140.]
492
493 min(cord_individual_obj[:,3]) = 68.0
494 histol_G_best_iter[iter,3] = 68.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 8. 148. 156.]
499 cord_individual_obj[indivial_i,:] = [ 1. 9. 89. 98.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 10. 80. 90.]
501 cord_individual_obj[indivial_i,:] = [ 3. 10. 121. 131.]
502 cord_individual_obj[indivial_i,:] = [ 4. 9. 98. 107.]
503 cord_individual_obj[indivial_i,:] = [ 5. 9. 121. 130.]
504 cord_individual_obj[indivial_i,:] = [ 6. 8. 106. 114.]
505 cord_individual_obj[indivial_i,:] = [ 7. 10. 91. 101.]
506 cord_individual_obj[indivial_i,:] = [ 8. 8. 103. 111.]
507 cord_individual_obj[indivial_i,:] = [ 9. 9. 126. 135.]
508 cord_individual_obj[indivial_i,:] = [10. 8. 111. 119.]
509 cord_individual_obj[indivial_i,:] = [11. 9. 59. 68.]
510 cord_individual_obj[indivial_i,:] = [12. 9. 166. 175.]
511 cord_individual_obj[indivial_i,:] = [13. 10. 90. 100.]
512 cord_individual_obj[indivial_i,:] = [14. 10. 94. 104.]
513 cord_individual_obj[indivial_i,:] = [15. 11. 93. 104.]
514 cord_individual_obj[indivial_i,:] = [16. 8. 138. 146.]
515 cord_individual_obj[indivial_i,:] = [17. 10. 116. 126.]
516 cord_individual_obj[indivial_i,:] = [18. 9. 116. 125.]
517 cord_individual_obj[indivial_i,:] = [19. 10. 70. 80.]
518 cord_individual_obj[indivial_i,:] = [20. 11. 140. 151.]
519 cord_individual_obj[indivial_i,:] = [21. 9. 148. 157.]
520 cord_individual_obj[indivial_i,:] = [22. 7. 140. 147.]
521 cord_individual_obj[indivial_i,:] = [23. 9. 161. 170.]
522 cord_individual_obj[indivial_i,:] = [24. 10. 75. 85.]
523
524 min(cord_individual_obj[:, 3]) = 68.0
525 histol_G_best_iter[iter, 3] = 68.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 8. 177. 185.]
530 cord_individual_obj[indivial_i,:] = [ 1. 10. 154. 164.]
531 cord_individual_obj[indivial_i,:] = [ 2. 9. 121. 130.]
532 cord_individual_obj[indivial_i,:] = [ 3. 9. 205. 214.]
533 cord_individual_obj[indivial_i,:] = [ 4. 8. 85. 93.]
534 cord_individual_obj[indivial_i,:] = [ 5. 10. 109. 119.]
535 cord_individual_obj[indivial_i,:] = [ 6. 9. 134. 143.]
536 cord_individual_obj[indivial_i,:] = [ 7. 10. 148. 158.]
537 cord_individual_obj[indivial_i,:] = [ 8. 8. 103. 111.]
538 cord_individual_obj[indivial_i,:] = [ 9. 8. 121. 129.]
539 cord_individual_obj[indivial_i,:] = [10. 7. 111. 118.]
540 cord_individual_obj[indivial_i,:] = [11. 8. 189. 197.]
541 cord_individual_obj[indivial_i,:] = [12. 9. 59. 68.]
542 cord_individual_obj[indivial_i,:] = [13. 8. 88. 96.]
543 cord_individual_obj[indivial_i,:] = [14. 10. 108. 118.]
544 cord_individual_obj[indivial_i,:] = [15. 9. 98. 107.]
545 cord_individual_obj[indivial_i,:] = [16. 8. 65. 73.]
546 cord_individual_obj[indivial_i,:] = [17. 11. 109. 120.]
547 cord_individual_obj[indivial_i,:] = [18. 8. 127. 135.]
548 cord_individual_obj[indivial_i,:] = [19. 8. 70. 78.]
549 cord_individual_obj[indivial_i,:] = [20. 10. 125. 135.]
550 cord_individual_obj[indivial_i,:] = [21. 11. 121. 132.]
551 cord_individual_obj[indivial_i,:] = [22. 7. 90. 97.]
552 cord_individual_obj[indivial_i,:] = [23. 8. 149. 157.]
553 cord_individual_obj[indivial_i,:] = [24. 8. 106. 114.]
554
555 min(cord_individual_obj[:, 3]) = 68.0
556 histol_G_best_iter[iter, 3] = 68.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 8. 123. 131.]
561 cord_individual_obj[indivial_i,:] = [ 1. 11. 137. 148.]
562 cord_individual_obj[indivial_i,:] = [ 2. 10. 90. 100.]
563 cord_individual_obj[indivial_i,:] = [ 3. 9. 59. 68.]
564 cord_individual_obj[indivial_i,:] = [ 4. 8. 86. 94.]
565 cord_individual_obj[indivial_i,:] = [ 5. 8. 110. 118.]
566 cord_individual_obj[indivial_i,:] = [ 6. 7. 102. 109.]
567 cord_individual_obj[indivial_i,:] = [ 7. 7. 116. 123.]
568 cord_individual_obj[indivial_i,:] = [ 8. 8. 125. 133.]
569 cord_individual_obj[indivial_i,:] = [ 9. 9. 101. 110.]
570 cord_individual_obj[indivial_i,:] = [10. 8. 166. 174.]
571 cord_individual_obj[indivial_i,:] = [11. 9. 194. 203.]
572 cord_individual_obj[indivial_i,:] = [12. 9. 102. 111.]
573 cord_individual_obj[indivial_i,:] = [13. 7. 110. 117.]
574 cord_individual_obj[indivial_i,:] = [14. 10. 102. 112.]
575 cord_individual_obj[indivial_i,:] = [15. 7. 84. 91.]
576 cord_individual_obj[indivial_i,:] = [16. 8. 133. 141.]
577 cord_individual_obj[indivial_i,:] = [17. 9. 123. 132.]
578 cord_individual_obj[indivial_i,:] = [18. 7. 120. 127.]
579 cord_individual_obj[indivial_i,:] = [19. 9. 70. 79.]
580 cord_individual_obj[indivial_i,:] = [20. 9. 171. 180.]
581 cord_individual_obj[indivial_i,:] = [21. 10. 77. 87.]
582 cord_individual_obj[indivial_i,:] = [22. 7. 71. 78.]
583 cord_individual_obj[indivial_i,:] = [23. 9. 132. 141.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 10. 115. 125.]
585
586     min(cord_individual_obj[:, 3]) = 68.0
587     historl_G_best_iter[iter, 3] = 68.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 7. 104. 111.]
592     cord_individual_obj[indivial_i, :] = [ 1. 9. 156. 165.]
593     cord_individual_obj[indivial_i, :] = [ 2. 9. 74. 83.]
594     cord_individual_obj[indivial_i, :] = [ 3. 7. 149. 156.]
595     cord_individual_obj[indivial_i, :] = [ 4. 8. 87. 95.]
596     cord_individual_obj[indivial_i, :] = [ 5. 8. 214. 222.]
597     cord_individual_obj[indivial_i, :] = [ 6. 8. 117. 125.]
598     cord_individual_obj[indivial_i, :] = [ 7. 8. 124. 132.]
599     cord_individual_obj[indivial_i, :] = [ 8. 8. 149. 157.]
600     cord_individual_obj[indivial_i, :] = [ 9. 9. 95. 104.]
601     cord_individual_obj[indivial_i, :] = [ 10. 8. 167. 175.]
602     cord_individual_obj[indivial_i, :] = [ 11. 9. 59. 68.]
603     cord_individual_obj[indivial_i, :] = [ 12. 8. 107. 115.]
604     cord_individual_obj[indivial_i, :] = [ 13. 9. 73. 82.]
605     cord_individual_obj[indivial_i, :] = [ 14. 10. 108. 118.]
606     cord_individual_obj[indivial_i, :] = [ 15. 8. 114. 122.]
607     cord_individual_obj[indivial_i, :] = [ 16. 9. 83. 92.]
608     cord_individual_obj[indivial_i, :] = [ 17. 9. 113. 122.]
609     cord_individual_obj[indivial_i, :] = [ 18. 8. 130. 138.]
610     cord_individual_obj[indivial_i, :] = [ 19. 10. 87. 97.]
611     cord_individual_obj[indivial_i, :] = [ 20. 9. 69. 78.]
612     cord_individual_obj[indivial_i, :] = [ 21. 10. 77. 87.]
613     cord_individual_obj[indivial_i, :] = [ 22. 7. 75. 82.]
614     cord_individual_obj[indivial_i, :] = [ 23. 8. 95. 103.]
615     cord_individual_obj[indivial_i, :] = [ 24. 8. 86. 94.]
616
617     min(cord_individual_obj[:, 3]) = 68.0
618     historl_G_best_iter[iter, 3] = 68.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 9. 125. 134.]
623     cord_individual_obj[indivial_i, :] = [ 1. 9. 95. 104.]
624     cord_individual_obj[indivial_i, :] = [ 2. 9. 189. 198.]
625     cord_individual_obj[indivial_i, :] = [ 3. 9. 150. 159.]
626     cord_individual_obj[indivial_i, :] = [ 4. 8. 159. 167.]
627     cord_individual_obj[indivial_i, :] = [ 5. 9. 59. 68.]
628     cord_individual_obj[indivial_i, :] = [ 6. 10. 78. 88.]
629     cord_individual_obj[indivial_i, :] = [ 7. 11. 199. 210.]
630     cord_individual_obj[indivial_i, :] = [ 8. 10. 130. 140.]
631     cord_individual_obj[indivial_i, :] = [ 9. 10. 96. 106.]
632     cord_individual_obj[indivial_i, :] = [ 10. 8. 103. 111.]
633     cord_individual_obj[indivial_i, :] = [ 11. 7. 121. 128.]
634     cord_individual_obj[indivial_i, :] = [ 12. 11. 78. 89.]
635     cord_individual_obj[indivial_i, :] = [ 13. 7. 79. 86.]
636     cord_individual_obj[indivial_i, :] = [ 14. 9. 137. 146.]
637     cord_individual_obj[indivial_i, :] = [ 15. 8. 89. 97.]
638     cord_individual_obj[indivial_i, :] = [ 16. 11. 151. 162.]
639     cord_individual_obj[indivial_i, :] = [ 17. 10. 107. 117.]
640     cord_individual_obj[indivial_i, :] = [ 18. 9. 126. 135.]
641     cord_individual_obj[indivial_i, :] = [ 19. 9. 106. 115.]
642     cord_individual_obj[indivial_i, :] = [ 20. 10. 97. 107.]
643     cord_individual_obj[indivial_i, :] = [ 21. 9. 102. 111.]
644     cord_individual_obj[indivial_i, :] = [ 22. 9. 102. 111.]
645     cord_individual_obj[indivial_i, :] = [ 23. 7. 151. 158.]
646     cord_individual_obj[indivial_i, :] = [ 24. 8. 68. 76.]
647
648     min(cord_individual_obj[:, 3]) = 68.0
649     historl_G_best_iter[iter, 3] = 68.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 8. 160. 168.]
654     cord_individual_obj[indivial_i, :] = [ 1. 8. 154. 162.]
655     cord_individual_obj[indivial_i, :] = [ 2. 8. 94. 102.]
656     cord_individual_obj[indivial_i, :] = [ 3. 8. 121. 129.]
657     cord_individual_obj[indivial_i, :] = [ 4. 8. 123. 131.]
658     cord_individual_obj[indivial_i, :] = [ 5. 8. 99. 107.]
659     cord_individual_obj[indivial_i, :] = [ 6. 8. 109. 117.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 59. 68.]
661     cord_individual_obj[indivial_i, :] = [ 8. 8. 131. 139.]
662     cord_individual_obj[indivial_i, :] = [ 9. 10. 137. 147.]
663     cord_individual_obj[indivial_i, :] = [ 10. 8. 92. 100.]
664     cord_individual_obj[indivial_i, :] = [ 11. 8. 166. 174.]
665     cord_individual_obj[indivial_i, :] = [ 12. 9. 73. 82.]
666     cord_individual_obj[indivial_i, :] = [ 13. 11. 95. 106.]
667     cord_individual_obj[indivial_i, :] = [ 14. 8. 101. 109.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 6. 102. 108.]
669 cord_individual_obj[indivial_i,:] = [ 16. 7. 104. 111.]
670 cord_individual_obj[indivial_i,:] = [ 17. 9. 152. 161.]
671 cord_individual_obj[indivial_i,:] = [ 18. 8. 76. 84.]
672 cord_individual_obj[indivial_i,:] = [ 19. 9. 114. 123.]
673 cord_individual_obj[indivial_i,:] = [ 20. 10. 99. 109.]
674 cord_individual_obj[indivial_i,:] = [ 21. 10. 112. 122.]
675 cord_individual_obj[indivial_i,:] = [ 22. 7. 115. 122.]
676 cord_individual_obj[indivial_i,:] = [ 23. 8. 68. 76.]
677 cord_individual_obj[indivial_i,:] = [ 24. 8. 108. 116.]
678
679 min(cord_individual_obj[:,3]) = 68.0
680 historl_G_best_iter[iter,3] = 68.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 198.0
689 Proportion_of_area = 0.18333333333333332
690 BEST_CHROM =
691     berth: [21. 8. 13. 7. 2.5 23. 22. 10.5 16.5 22. 23.5 2.5 3.5 15.5
692 14.5 4.5]
693     time: [0. 3. 4. 0. 0. 3. 5. 0. 4. 7. 4. 2. 6. 3. 0. 8.]
694     num_QC: [3. 4. 4. 2. 3. 5. 5. 2. 2. 3. 3. 2. 4. 6. 4. 2.]
695 Objective function values and some other indicators:
696 Obj0 = 9.00          Obj1 = 59.00        Obj0 + Obj1 = 68.00
697 Total movement of crane: 10.00
698 Total waiting time in berth position: 49.00
699 Total index of q during berthing: 919.00
700 Specific arrangement for each vessel:
701 V_id: 0      li: 8.0           xi: 21.0           bow of i: 17.0           tail of i: 25.0           gama_i0: 0.0           gama_i1: 2
.0           gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work
load_i: 140.0           work load gap_i: 0
702 V_id: 1      li: 6.0           xi: 8.0           bow of i: 5.0           tail of i: 11.0           gama_i0: 3.0           gama_i1: 4.0
.0           gama_i1 + 1: 5.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work load_i:
140.0           work load gap_i: 0
703 V_id: 2      li: 4.0           xi: 13.0           bow of i: 11.0           tail of i: 15.0           gama_i0: 4.0           gama_i1: 5
.0           gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work
load_i: 120.0           work load gap_i: 0
704 V_id: 3      li: 4.0           xi: 7.0           bow of i: 5.0           tail of i: 9.0           gama_i0: 0.0           gama_i1: 2.0
.0           gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0           work load_i:
120.0           work load gap_i: 0
705 V_id: 4      li: 5.0           xi: 2.5           bow of i: 0.0           tail of i: 5.0           gama_i0: 0.0           gama_i1: 1.0
.0           gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work load_i:
100.0           work load gap_i: 0
706 V_id: 5      li: 8.0           xi: 23.0           bow of i: 19.0           tail of i: 27.0           gama_i0: 3.0           gama_i1: 3
.0           gama_i1 + 1: 4.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 100.0           work
load_i: 100.0           work load gap_i: 0
707 V_id: 6      li: 8.0           xi: 22.0           bow of i: 18.0           tail of i: 26.0           gama_i0: 5.0           gama_i1: 6
.0           gama_i1 + 1: 7.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work
load_i: 120.0           work load gap_i: 0
708 V_id: 7      li: 3.0           xi: 10.5           bow of i: 9.0           tail of i: 12.0           gama_i0: 0.0           gama_i1: 2
.0           gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 100.0           work
load_i: 100.0           work load gap_i: 0
709 V_id: 8      li: 3.0           xi: 16.5           bow of i: 15.0           tail of i: 18.0           gama_i0: 4.0           gama_i1: 6
.0           gama_i1 + 1: 7.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 100.0           work
load_i: 100.0           work load gap_i: 0
710 V_id: 9      li: 8.0           xi: 22.0           bow of i: 18.0           tail of i: 26.0           gama_i0: 7.0           gama_i1: 8
.0           gama_i1 + 1: 9.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work
load_i: 100.0           work load gap_i: 0
711 V_id: 10     li: 9.0           xi: 23.5           bow of i: 19.0           tail of i: 28.0           gama_i0: 4.0           gama_i1:
.0           gama_i1 + 1: 5.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
load_i: 60.0           work load gap_i: 0
712 V_id: 11     li: 5.0           xi: 2.5           bow of i: 0.0           tail of i: 5.0           gama_i0: 2.0           gama_i1: 5.0
.0           gama_i1 + 1: 6.0       gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 160.0           work load_i:
160.0           work load gap_i: 0
713 V_id: 12     li: 7.0           xi: 3.5           bow of i: 0.0           tail of i: 7.0           gama_i0: 6.0           gama_i1: 7.0
.0           gama_i1 + 1: 8.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work load_i:
120.0           work load gap_i: 0
714 V_id: 13     li: 7.0           xi: 15.5           bow of i: 12.0           tail of i: 19.0           gama_i0: 3.0           gama_i1:
.0           gama_i1 + 1: 4.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
load_i: 60.0           work load gap_i: 0
715 V_id: 14     li: 5.0           xi: 14.5           bow of i: 12.0           tail of i: 17.0           gama_i0: 0.0           gama_i1:
.0           gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work
load_i: 140.0           work load gap_i: 0
716 V_id: 15     li: 9.0           xi: 4.5           bow of i: 0.0           tail of i: 9.0           gama_i0: 8.0           gama_i1: 9.0
.0           gama_i1 + 1: 10.0      gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0           work
load_i: 60.0           work load gap_i: 0
717
718 Algorithm finished and the total CPU time: 490 s
719 End

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