

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 7. 99. 106.]
81 cord_individual_obj[indivial_i,:] = [ 17. 10. 95. 105.]
82 cord_individual_obj[indivial_i,:] = [18. 6. 67. 73.]
83 cord_individual_obj[indivial_i,:] = [ 19. 9. 105. 114.]
84 cord_individual_obj[indivial_i,:] = [ 20. 8. 129. 137.]
85 cord_individual_obj[indivial_i,:] = [ 21. 9. 142. 151.]
86 cord_individual_obj[indivial_i,:] = [ 22. 7. 100. 107.]
87 cord_individual_obj[indivial_i,:] = [ 23. 7. 103. 110.]
88 cord_individual_obj[indivial_i,:] = [24. 7. 86. 93.]
89
90 min(cord_individual_obj[:,3]) = 73.0
91 historl_G_best_iter[iter, 3] = 73.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 7. 137. 144.]
96 cord_individual_obj[indivial_i,:] = [ 1. 8. 141. 149.]
97 cord_individual_obj[indivial_i,:] = [ 2. 7. 133. 140.]
98 cord_individual_obj[indivial_i,:] = [ 3. 8. 87. 95.]
99 cord_individual_obj[indivial_i,:] = [ 4. 9. 128. 137.]
100 cord_individual_obj[indivial_i,:] = [ 5. 6. 67. 73.]
101 cord_individual_obj[indivial_i,:] = [ 6. 7. 99. 106.]
102 cord_individual_obj[indivial_i,:] = [ 7. 8. 84. 92.]
103 cord_individual_obj[indivial_i,:] = [ 8. 8. 102. 110.]
104 cord_individual_obj[indivial_i,:] = [ 9. 8. 91. 99.]
105 cord_individual_obj[indivial_i,:] = [ 10. 6. 113. 119.]
106 cord_individual_obj[indivial_i,:] = [ 11. 8. 93. 101.]
107 cord_individual_obj[indivial_i,:] = [ 12. 8. 186. 194.]
108 cord_individual_obj[indivial_i,:] = [ 13. 8. 155. 163.]
109 cord_individual_obj[indivial_i,:] = [ 14. 8. 138. 146.]
110 cord_individual_obj[indivial_i,:] = [ 15. 8. 113. 121.]
111 cord_individual_obj[indivial_i,:] = [ 16. 10. 97. 107.]
112 cord_individual_obj[indivial_i,:] = [ 17. 9. 123. 132.]
113 cord_individual_obj[indivial_i,:] = [ 18. 9. 118. 127.]
114 cord_individual_obj[indivial_i,:] = [ 19. 9. 144. 153.]
115 cord_individual_obj[indivial_i,:] = [ 20. 7. 196. 203.]
116 cord_individual_obj[indivial_i,:] = [21. 8. 91. 99.]
117 cord_individual_obj[indivial_i,:] = [ 22. 9. 130. 139.]
118 cord_individual_obj[indivial_i,:] = [ 23. 10. 268. 278.]
119 cord_individual_obj[indivial_i,:] = [ 24. 8. 92. 100.]
120
121 min(cord_individual_obj[:,3]) = 73.0
122 historl_G_best_iter[iter, 3] = 73.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 6. 110. 116.]
127 cord_individual_obj[indivial_i,:] = [ 1. 7. 135. 142.]
128 cord_individual_obj[indivial_i,:] = [ 2. 7. 136. 143.]
129 cord_individual_obj[indivial_i,:] = [ 3. 6. 140. 146.]
130 cord_individual_obj[indivial_i,:] = [ 4. 8. 148. 156.]
131 cord_individual_obj[indivial_i,:] = [ 5. 6. 110. 116.]
132 cord_individual_obj[indivial_i,:] = [ 6. 8. 125. 133.]
133 cord_individual_obj[indivial_i,:] = [ 7. 9. 97. 106.]
134 cord_individual_obj[indivial_i,:] = [ 8. 6. 119. 125.]
135 cord_individual_obj[indivial_i,:] = [ 9. 7. 158. 165.]
136 cord_individual_obj[indivial_i,:] = [10. 9. 82. 91.]
137 cord_individual_obj[indivial_i,:] = [ 11. 9. 134. 143.]
138 cord_individual_obj[indivial_i,:] = [ 12. 7. 130. 137.]
139 cord_individual_obj[indivial_i,:] = [ 13. 7. 150. 157.]
140 cord_individual_obj[indivial_i,:] = [ 14. 7. 100. 107.]
141 cord_individual_obj[indivial_i,:] = [15. 7. 92. 99.]
142 cord_individual_obj[indivial_i,:] = [16. 7. 83. 90.]
143 cord_individual_obj[indivial_i,:] = [ 17. 8. 108. 116.]
144 cord_individual_obj[indivial_i,:] = [ 18. 9. 109. 118.]
145 cord_individual_obj[indivial_i,:] = [19. 8. 91. 99.]
146 cord_individual_obj[indivial_i,:] = [20. 6. 105. 111.]
147 cord_individual_obj[indivial_i,:] = [21. 8. 77. 85.]
148 cord_individual_obj[indivial_i,:] = [22. 6. 84. 90.]
149 cord_individual_obj[indivial_i,:] = [23. 6. 67. 73.]
150 cord_individual_obj[indivial_i,:] = [24. 9. 83. 92.]
151
152 min(cord_individual_obj[:,3]) = 73.0
153 historl_G_best_iter[iter, 3] = 73.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 7. 117. 124.]
158 cord_individual_obj[indivial_i,:] = [ 1. 8. 169. 177.]
159 cord_individual_obj[indivial_i,:] = [ 2. 6. 142. 148.]
160 cord_individual_obj[indivial_i,:] = [ 3. 8. 144. 152.]
161 cord_individual_obj[indivial_i,:] = [ 4. 6. 92. 98.]
162 cord_individual_obj[indivial_i,:] = [ 5. 8. 143. 151.]
163 cord_individual_obj[indivial_i,:] = [ 6. 6. 193. 199.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 9. 110. 119.]
165 cord_individual_obj[indivial_i,:] = [ 8. 8. 122. 130.]
166 cord_individual_obj[indivial_i,:] = [ 9. 6. 67. 73.]
167 cord_individual_obj[indivial_i,:] = [10. 7. 67. 74.]
168 cord_individual_obj[indivial_i,:] = [11. 8. 107. 115.]
169 cord_individual_obj[indivial_i,:] = [12. 8. 98. 106.]
170 cord_individual_obj[indivial_i,:] = [13. 7. 117. 124.]
171 cord_individual_obj[indivial_i,:] = [14. 9. 172. 181.]
172 cord_individual_obj[indivial_i,:] = [15. 7. 113. 120.]
173 cord_individual_obj[indivial_i,:] = [16. 9. 147. 156.]
174 cord_individual_obj[indivial_i,:] = [17. 10. 108. 118.]
175 cord_individual_obj[indivial_i,:] = [18. 10. 124. 134.]
176 cord_individual_obj[indivial_i,:] = [19. 8. 115. 123.]
177 cord_individual_obj[indivial_i,:] = [20. 9. 114. 123.]
178 cord_individual_obj[indivial_i,:] = [21. 9. 107. 116.]
179 cord_individual_obj[indivial_i,:] = [22. 8. 123. 131.]
180 cord_individual_obj[indivial_i,:] = [23. 9. 195. 204.]
181 cord_individual_obj[indivial_i,:] = [24. 7. 121. 128.]
182
183 min(cord_individual_obj[:,3]) = 73.0
184 historl_G_best_iter[iter,3] = 73.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 8. 101. 109.]
189 cord_individual_obj[indivial_i,:] = [ 1. 7. 125. 132.]
190 cord_individual_obj[indivial_i,:] = [ 2. 7. 166. 173.]
191 cord_individual_obj[indivial_i,:] = [ 3. 8. 107. 115.]
192 cord_individual_obj[indivial_i,:] = [ 4. 8. 134. 142.]
193 cord_individual_obj[indivial_i,:] = [ 5. 7. 136. 143.]
194 cord_individual_obj[indivial_i,:] = [ 6. 8. 142. 150.]
195 cord_individual_obj[indivial_i,:] = [ 7. 8. 105. 113.]
196 cord_individual_obj[indivial_i,:] = [ 8. 8. 123. 131.]
197 cord_individual_obj[indivial_i,:] = [ 9. 7. 137. 144.]
198 cord_individual_obj[indivial_i,:] = [10. 6. 121. 127.]
199 cord_individual_obj[indivial_i,:] = [11. 8. 132. 140.]
200 cord_individual_obj[indivial_i,:] = [12. 8. 130. 138.]
201 cord_individual_obj[indivial_i,:] = [13. 10. 206. 216.]
202 cord_individual_obj[indivial_i,:] = [14. 7. 87. 94.]
203 cord_individual_obj[indivial_i,:] = [15. 7. 124. 131.]
204 cord_individual_obj[indivial_i,:] = [16. 8. 121. 129.]
205 cord_individual_obj[indivial_i,:] = [17. 8. 140. 148.]
206 cord_individual_obj[indivial_i,:] = [18. 7. 152. 159.]
207 cord_individual_obj[indivial_i,:] = [19. 8. 151. 159.]
208 cord_individual_obj[indivial_i,:] = [20. 7. 100. 107.]
209 cord_individual_obj[indivial_i,:] = [21. 10. 116. 126.]
210 cord_individual_obj[indivial_i,:] = [22. 5. 169. 174.]
211 cord_individual_obj[indivial_i,:] = [23. 6. 67. 73.]
212 cord_individual_obj[indivial_i,:] = [24. 11. 114. 125.]
213
214 min(cord_individual_obj[:,3]) = 73.0
215 historl_G_best_iter[iter,3] = 73.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 7. 112. 119.]
220 cord_individual_obj[indivial_i,:] = [ 1. 7. 162. 169.]
221 cord_individual_obj[indivial_i,:] = [ 2. 7. 108. 115.]
222 cord_individual_obj[indivial_i,:] = [ 3. 7. 101. 108.]
223 cord_individual_obj[indivial_i,:] = [ 4. 8. 99. 107.]
224 cord_individual_obj[indivial_i,:] = [ 5. 7. 95. 102.]
225 cord_individual_obj[indivial_i,:] = [ 6. 7. 124. 131.]
226 cord_individual_obj[indivial_i,:] = [ 7. 8. 123. 131.]
227 cord_individual_obj[indivial_i,:] = [ 8. 8. 95. 103.]
228 cord_individual_obj[indivial_i,:] = [ 9. 7. 161. 168.]
229 cord_individual_obj[indivial_i,:] = [10. 9. 112. 121.]
230 cord_individual_obj[indivial_i,:] = [11. 8. 114. 122.]
231 cord_individual_obj[indivial_i,:] = [12. 8. 117. 125.]
232 cord_individual_obj[indivial_i,:] = [13. 6. 67. 73.]
233 cord_individual_obj[indivial_i,:] = [14. 6. 85. 91.]
234 cord_individual_obj[indivial_i,:] = [15. 6. 127. 133.]
235 cord_individual_obj[indivial_i,:] = [16. 8. 109. 117.]
236 cord_individual_obj[indivial_i,:] = [17. 9. 87. 96.]
237 cord_individual_obj[indivial_i,:] = [18. 9. 121. 130.]
238 cord_individual_obj[indivial_i,:] = [19. 9. 90. 99.]
239 cord_individual_obj[indivial_i,:] = [20. 7. 90. 97.]
240 cord_individual_obj[indivial_i,:] = [21. 8. 126. 134.]
241 cord_individual_obj[indivial_i,:] = [22. 7. 121. 128.]
242 cord_individual_obj[indivial_i,:] = [23. 7. 104. 111.]
243 cord_individual_obj[indivial_i,:] = [24. 6. 128. 134.]
244
245 min(cord_individual_obj[:,3]) = 73.0
246 historl_G_best_iter[iter,3] = 73.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0.  7. 160. 167.]
251 cord_individual_obj[indivial_i, :] = [ 1.  6. 67. 73.]
252 cord_individual_obj[indivial_i, :] = [ 2.  7. 160. 167.]
253 cord_individual_obj[indivial_i, :] = [ 3.  7. 192. 199.]
254 cord_individual_obj[indivial_i, :] = [ 4.  8. 153. 161.]
255 cord_individual_obj[indivial_i, :] = [ 5.  8. 103. 111.]
256 cord_individual_obj[indivial_i, :] = [ 6.  9. 98. 107.]
257 cord_individual_obj[indivial_i, :] = [ 7.  9. 103. 112.]
258 cord_individual_obj[indivial_i, :] = [ 8.  7. 112. 119.]
259 cord_individual_obj[indivial_i, :] = [ 9.  6. 138. 144.]
260 cord_individual_obj[indivial_i, :] = [ 10. 9. 107. 116.]
261 cord_individual_obj[indivial_i, :] = [ 11. 11. 116. 127.]
262 cord_individual_obj[indivial_i, :] = [ 12. 8. 117. 125.]
263 cord_individual_obj[indivial_i, :] = [ 13. 10. 121. 131.]
264 cord_individual_obj[indivial_i, :] = [ 14. 8. 94. 102.]
265 cord_individual_obj[indivial_i, :] = [ 15. 7. 174. 181.]
266 cord_individual_obj[indivial_i, :] = [ 16. 10. 110. 120.]
267 cord_individual_obj[indivial_i, :] = [ 17. 9. 93. 102.]
268 cord_individual_obj[indivial_i, :] = [ 18. 9. 91. 100.]
269 cord_individual_obj[indivial_i, :] = [ 19. 8. 125. 133.]
270 cord_individual_obj[indivial_i, :] = [ 20. 7. 136. 143.]
271 cord_individual_obj[indivial_i, :] = [ 21. 9. 87. 96.]
272 cord_individual_obj[indivial_i, :] = [ 22. 7. 93. 100.]
273 cord_individual_obj[indivial_i, :] = [ 23. 8. 128. 136.]
274 cord_individual_obj[indivial_i, :] = [ 24. 9. 98. 107.]
275

276 min(cord_individual_obj[:, 3]) = 73.0
277 historl_G_best_iter[iter, 3] = 73.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0.  7. 109. 116.]
282 cord_individual_obj[indivial_i, :] = [ 1.  9. 152. 161.]
283 cord_individual_obj[indivial_i, :] = [ 2.  6. 141. 147.]
284 cord_individual_obj[indivial_i, :] = [ 3.  6. 67. 73.]
285 cord_individual_obj[indivial_i, :] = [ 4.  7. 183. 190.]
286 cord_individual_obj[indivial_i, :] = [ 5.  6. 108. 114.]
287 cord_individual_obj[indivial_i, :] = [ 6.  6. 109. 115.]
288 cord_individual_obj[indivial_i, :] = [ 7.  10. 96. 106.]
289 cord_individual_obj[indivial_i, :] = [ 8.  7. 111. 118.]
290 cord_individual_obj[indivial_i, :] = [ 9.  7. 119. 126.]
291 cord_individual_obj[indivial_i, :] = [ 10. 8. 96. 104.]
292 cord_individual_obj[indivial_i, :] = [ 11. 8. 83. 91.]
293 cord_individual_obj[indivial_i, :] = [ 12. 7. 76. 83.]
294 cord_individual_obj[indivial_i, :] = [ 13. 7. 103. 110.]
295 cord_individual_obj[indivial_i, :] = [ 14. 8. 112. 120.]
296 cord_individual_obj[indivial_i, :] = [ 15. 9. 144. 153.]
297 cord_individual_obj[indivial_i, :] = [ 16. 7. 83. 90.]
298 cord_individual_obj[indivial_i, :] = [ 17. 7. 111. 118.]
299 cord_individual_obj[indivial_i, :] = [ 18. 9. 77. 86.]
300 cord_individual_obj[indivial_i, :] = [ 19. 6. 124. 130.]
301 cord_individual_obj[indivial_i, :] = [ 20. 8. 102. 110.]
302 cord_individual_obj[indivial_i, :] = [ 21. 11. 121. 132.]
303 cord_individual_obj[indivial_i, :] = [ 22. 6. 106. 112.]
304 cord_individual_obj[indivial_i, :] = [ 23. 8. 122. 130.]
305 cord_individual_obj[indivial_i, :] = [ 24. 7. 107. 114.]
306

307 min(cord_individual_obj[:, 3]) = 73.0
308 historl_G_best_iter[iter, 3] = 73.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0.  7. 91. 98.]
313 cord_individual_obj[indivial_i, :] = [ 1.  7. 128. 135.]
314 cord_individual_obj[indivial_i, :] = [ 2.  7. 151. 158.]
315 cord_individual_obj[indivial_i, :] = [ 3.  6. 158. 164.]
316 cord_individual_obj[indivial_i, :] = [ 4.  6. 67. 73.]
317 cord_individual_obj[indivial_i, :] = [ 5.  7. 140. 147.]
318 cord_individual_obj[indivial_i, :] = [ 6.  8. 135. 143.]
319 cord_individual_obj[indivial_i, :] = [ 7.  10. 149. 159.]
320 cord_individual_obj[indivial_i, :] = [ 8.  8. 121. 129.]
321 cord_individual_obj[indivial_i, :] = [ 9.  8. 151. 159.]
322 cord_individual_obj[indivial_i, :] = [ 10. 8. 75. 83.]
323 cord_individual_obj[indivial_i, :] = [ 11. 8. 97. 105.]
324 cord_individual_obj[indivial_i, :] = [ 12. 9. 98. 107.]
325 cord_individual_obj[indivial_i, :] = [ 13. 8. 134. 142.]
326 cord_individual_obj[indivial_i, :] = [ 14. 8. 104. 112.]
327 cord_individual_obj[indivial_i, :] = [ 15. 7. 100. 107.]
328 cord_individual_obj[indivial_i, :] = [ 16. 7. 95. 102.]
329 cord_individual_obj[indivial_i, :] = [ 17. 9. 112. 121.]
330 cord_individual_obj[indivial_i, :] = [ 18. 9. 102. 111.]
331 cord_individual_obj[indivial_i, :] = [ 19. 9. 90. 99.]

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332     cord_individual_obj[indivial_i,:] = [ 20.  7. 108. 115.]
333     cord_individual_obj[indivial_i,:] = [ 21.  9.  92. 101.]
334     cord_individual_obj[indivial_i,:] = [ 22.  7.  72.  79.]
335     cord_individual_obj[indivial_i,:] = [ 23.  9. 123. 132.]
336     cord_individual_obj[indivial_i,:] = [ 24.  8. 107. 115.]
337
338 min(cord_individual_obj[:,3]) = 73.0
339 historl_G_best_iter[iter,3] = 73.0
340 Begin iteration:
341
342 iter = 10
343     cord_individual_obj[indivial_i,:] = [ 0.  7. 162. 169.]
344     cord_individual_obj[indivial_i,:] = [ 1.  6. 129. 135.]
345     cord_individual_obj[indivial_i,:] = [ 2.  6. 158. 164.]
346     cord_individual_obj[indivial_i,:] = [ 3.  6. 67. 73.]
347     cord_individual_obj[indivial_i,:] = [ 4.  8. 173. 181.]
348     cord_individual_obj[indivial_i,:] = [ 5.  7. 119. 126.]
349     cord_individual_obj[indivial_i,:] = [ 6.  9. 147. 156.]
350     cord_individual_obj[indivial_i,:] = [ 7. 11. 175. 186.]
351     cord_individual_obj[indivial_i,:] = [ 8.  8. 101. 109.]
352     cord_individual_obj[indivial_i,:] = [ 9.  7. 141. 148.]
353     cord_individual_obj[indivial_i,:] = [ 10. 8. 143. 151.]
354     cord_individual_obj[indivial_i,:] = [ 11. 7. 113. 120.]
355     cord_individual_obj[indivial_i,:] = [ 12. 9. 182. 191.]
356     cord_individual_obj[indivial_i,:] = [ 13. 8. 133. 141.]
357     cord_individual_obj[indivial_i,:] = [ 14. 8. 111. 119.]
358     cord_individual_obj[indivial_i,:] = [ 15. 9. 114. 123.]
359     cord_individual_obj[indivial_i,:] = [ 16. 8. 120. 128.]
360     cord_individual_obj[indivial_i,:] = [ 17. 10. 118. 128.]
361     cord_individual_obj[indivial_i,:] = [ 18. 10. 124. 134.]
362     cord_individual_obj[indivial_i,:] = [ 19. 10. 165. 175.]
363     cord_individual_obj[indivial_i,:] = [ 20. 8. 228. 236.]
364     cord_individual_obj[indivial_i,:] = [ 21. 8. 155. 163.]
365     cord_individual_obj[indivial_i,:] = [ 22. 7. 127. 134.]
366     cord_individual_obj[indivial_i,:] = [ 23. 8. 128. 136.]
367     cord_individual_obj[indivial_i,:] = [ 24. 8. 75. 83.]
368
369 min(cord_individual_obj[:,3]) = 73.0
370 historl_G_best_iter[iter,3] = 73.0
371 Begin iteration:
372
373 iter = 11
374     cord_individual_obj[indivial_i,:] = [ 0.  6. 134. 140.]
375     cord_individual_obj[indivial_i,:] = [ 1.  6. 124. 130.]
376     cord_individual_obj[indivial_i,:] = [ 2.  7. 147. 154.]
377     cord_individual_obj[indivial_i,:] = [ 3.  6. 154. 160.]
378     cord_individual_obj[indivial_i,:] = [ 4. 10. 146. 156.]
379     cord_individual_obj[indivial_i,:] = [ 5.  8. 188. 196.]
380     cord_individual_obj[indivial_i,:] = [ 6.  8. 133. 141.]
381     cord_individual_obj[indivial_i,:] = [ 7.  9. 128. 137.]
382     cord_individual_obj[indivial_i,:] = [ 8.  7. 138. 145.]
383     cord_individual_obj[indivial_i,:] = [ 9.  7. 220. 227.]
384     cord_individual_obj[indivial_i,:] = [ 10. 9. 100. 109.]
385     cord_individual_obj[indivial_i,:] = [ 11. 11. 117. 128.]
386     cord_individual_obj[indivial_i,:] = [ 12. 8. 74. 82.]
387     cord_individual_obj[indivial_i,:] = [ 13. 10. 175. 185.]
388     cord_individual_obj[indivial_i,:] = [ 14. 8. 106. 114.]
389     cord_individual_obj[indivial_i,:] = [ 15. 6. 120. 126.]
390     cord_individual_obj[indivial_i,:] = [ 16. 9. 141. 150.]
391     cord_individual_obj[indivial_i,:] = [ 17. 11. 122. 133.]
392     cord_individual_obj[indivial_i,:] = [ 18. 12. 122. 134.]
393     cord_individual_obj[indivial_i,:] = [ 19. 8. 110. 118.]
394     cord_individual_obj[indivial_i,:] = [ 20. 6. 67. 73.]
395     cord_individual_obj[indivial_i,:] = [ 21. 6. 91. 97.]
396     cord_individual_obj[indivial_i,:] = [ 22. 8. 115. 123.]
397     cord_individual_obj[indivial_i,:] = [ 23. 10. 127. 137.]
398     cord_individual_obj[indivial_i,:] = [ 24. 7. 125. 132.]
399
400 min(cord_individual_obj[:,3]) = 73.0
401 historl_G_best_iter[iter,3] = 73.0
402 Begin iteration:
403
404 iter = 12
405     cord_individual_obj[indivial_i,:] = [ 0.  6. 86. 92.]
406     cord_individual_obj[indivial_i,:] = [ 1.  7. 105. 112.]
407     cord_individual_obj[indivial_i,:] = [ 2.  7. 140. 147.]
408     cord_individual_obj[indivial_i,:] = [ 3.  6. 156. 162.]
409     cord_individual_obj[indivial_i,:] = [ 4.  9. 172. 181.]
410     cord_individual_obj[indivial_i,:] = [ 5.  7. 138. 145.]
411     cord_individual_obj[indivial_i,:] = [ 6.  8. 126. 134.]
412     cord_individual_obj[indivial_i,:] = [ 7.  9. 117. 126.]
413     cord_individual_obj[indivial_i,:] = [ 8.  9. 88. 97.]
414     cord_individual_obj[indivial_i,:] = [ 9.  6. 67. 73.]
415     cord_individual_obj[indivial_i,:] = [ 10. 8. 98. 106.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 9. 109. 118.]
417 cord_individual_obj[indivial_i,:] = [ 12. 8. 99. 107.]
418 cord_individual_obj[indivial_i,:] = [ 13. 9. 121. 130.]
419 cord_individual_obj[indivial_i,:] = [ 14. 7. 98. 105.]
420 cord_individual_obj[indivial_i,:] = [ 15. 8. 162. 170.]
421 cord_individual_obj[indivial_i,:] = [ 16. 9. 91. 100.]
422 cord_individual_obj[indivial_i,:] = [ 17. 9. 93. 102.]
423 cord_individual_obj[indivial_i,:] = [ 18. 9. 128. 137.]
424 cord_individual_obj[indivial_i,:] = [ 19. 11. 120. 131.]
425 cord_individual_obj[indivial_i,:] = [ 20. 7. 121. 128.]
426 cord_individual_obj[indivial_i,:] = [ 21. 8. 82. 90.]
427 cord_individual_obj[indivial_i,:] = [ 22. 6. 148. 154.]
428 cord_individual_obj[indivial_i,:] = [ 23. 7. 112. 119.]
429 cord_individual_obj[indivial_i,:] = [ 24. 9. 99. 108.]
430
431 min(cord_individual_obj[:,3]) = 73.0
432 histol_G_best_iter[iter,3] = 73.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 8. 143. 151.]
437 cord_individual_obj[indivial_i,:] = [ 1. 7. 107. 114.]
438 cord_individual_obj[indivial_i,:] = [ 2. 6. 161. 167.]
439 cord_individual_obj[indivial_i,:] = [ 3. 6. 157. 163.]
440 cord_individual_obj[indivial_i,:] = [ 4. 6. 67. 73.]
441 cord_individual_obj[indivial_i,:] = [ 5. 6. 164. 170.]
442 cord_individual_obj[indivial_i,:] = [ 6. 9. 148. 157.]
443 cord_individual_obj[indivial_i,:] = [ 7. 8. 100. 108.]
444 cord_individual_obj[indivial_i,:] = [ 8. 7. 90. 97.]
445 cord_individual_obj[indivial_i,:] = [ 9. 7. 150. 157.]
446 cord_individual_obj[indivial_i,:] = [ 10. 7. 107. 114.]
447 cord_individual_obj[indivial_i,:] = [ 11. 7. 102. 109.]
448 cord_individual_obj[indivial_i,:] = [ 12. 8. 87. 95.]
449 cord_individual_obj[indivial_i,:] = [ 13. 7. 145. 152.]
450 cord_individual_obj[indivial_i,:] = [ 14. 6. 88. 94.]
451 cord_individual_obj[indivial_i,:] = [ 15. 10. 149. 159.]
452 cord_individual_obj[indivial_i,:] = [ 16. 7. 100. 107.]
453 cord_individual_obj[indivial_i,:] = [ 17. 8. 112. 120.]
454 cord_individual_obj[indivial_i,:] = [ 18. 9. 109. 118.]
455 cord_individual_obj[indivial_i,:] = [ 19. 8. 113. 121.]
456 cord_individual_obj[indivial_i,:] = [ 20. 7. 134. 141.]
457 cord_individual_obj[indivial_i,:] = [ 21. 10. 105. 115.]
458 cord_individual_obj[indivial_i,:] = [ 22. 6. 108. 114.]
459 cord_individual_obj[indivial_i,:] = [ 23. 8. 175. 183.]
460 cord_individual_obj[indivial_i,:] = [ 24. 8. 84. 92.]
461
462 min(cord_individual_obj[:,3]) = 73.0
463 histol_G_best_iter[iter,3] = 73.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 7. 93. 100.]
468 cord_individual_obj[indivial_i,:] = [ 1. 7. 154. 161.]
469 cord_individual_obj[indivial_i,:] = [ 2. 7. 137. 144.]
470 cord_individual_obj[indivial_i,:] = [ 3. 6. 89. 95.]
471 cord_individual_obj[indivial_i,:] = [ 4. 10. 172. 182.]
472 cord_individual_obj[indivial_i,:] = [ 5. 7. 92. 99.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 126. 134.]
474 cord_individual_obj[indivial_i,:] = [ 7. 8. 91. 99.]
475 cord_individual_obj[indivial_i,:] = [ 8. 7. 110. 117.]
476 cord_individual_obj[indivial_i,:] = [ 9. 6. 135. 141.]
477 cord_individual_obj[indivial_i,:] = [ 10. 8. 107. 115.]
478 cord_individual_obj[indivial_i,:] = [ 11. 10. 138. 148.]
479 cord_individual_obj[indivial_i,:] = [ 12. 11. 120. 131.]
480 cord_individual_obj[indivial_i,:] = [ 13. 7. 119. 126.]
481 cord_individual_obj[indivial_i,:] = [ 14. 7. 103. 110.]
482 cord_individual_obj[indivial_i,:] = [ 15. 8. 121. 129.]
483 cord_individual_obj[indivial_i,:] = [ 16. 8. 103. 111.]
484 cord_individual_obj[indivial_i,:] = [ 17. 8. 114. 122.]
485 cord_individual_obj[indivial_i,:] = [ 18. 8. 124. 132.]
486 cord_individual_obj[indivial_i,:] = [ 19. 10. 142. 152.]
487 cord_individual_obj[indivial_i,:] = [ 20. 8. 130. 138.]
488 cord_individual_obj[indivial_i,:] = [ 21. 9. 89. 98.]
489 cord_individual_obj[indivial_i,:] = [ 22. 6. 72. 78.]
490 cord_individual_obj[indivial_i,:] = [ 23. 6. 67. 73.]
491 cord_individual_obj[indivial_i,:] = [ 24. 7. 87. 94.]
492
493 min(cord_individual_obj[:,3]) = 73.0
494 histol_G_best_iter[iter,3] = 73.0
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. 110. 117.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 7. 146. 153.]
501 cord_individual_obj[indivial_i,:] = [ 3. 6. 168. 174.]
502 cord_individual_obj[indivial_i,:] = [ 4. 6. 67. 73.]
503 cord_individual_obj[indivial_i,:] = [ 5. 8. 122. 130.]
504 cord_individual_obj[indivial_i,:] = [ 6. 9. 147. 156.]
505 cord_individual_obj[indivial_i,:] = [ 7. 9. 99. 108.]
506 cord_individual_obj[indivial_i,:] = [ 8. 8. 120. 128.]
507 cord_individual_obj[indivial_i,:] = [ 9. 8. 132. 140.]
508 cord_individual_obj[indivial_i,:] = [ 10. 8. 94. 102.]
509 cord_individual_obj[indivial_i,:] = [ 11. 7. 141. 148.]
510 cord_individual_obj[indivial_i,:] = [ 12. 9. 103. 112.]
511 cord_individual_obj[indivial_i,:] = [ 13. 8. 89. 97.]
512 cord_individual_obj[indivial_i,:] = [ 14. 8. 105. 113.]
513 cord_individual_obj[indivial_i,:] = [ 15. 6. 161. 167.]
514 cord_individual_obj[indivial_i,:] = [ 16. 7. 75. 82.]
515 cord_individual_obj[indivial_i,:] = [ 17. 9. 93. 102.]
516 cord_individual_obj[indivial_i,:] = [ 18. 9. 129. 138.]
517 cord_individual_obj[indivial_i,:] = [ 19. 8. 99. 107.]
518 cord_individual_obj[indivial_i,:] = [ 20. 9. 139. 148.]
519 cord_individual_obj[indivial_i,:] = [ 21. 9. 116. 125.]
520 cord_individual_obj[indivial_i,:] = [ 22. 8. 149. 157.]
521 cord_individual_obj[indivial_i,:] = [ 23. 9. 173. 182.]
522 cord_individual_obj[indivial_i,:] = [ 24. 9. 109. 118.]
523
524 min(cord_individual_obj[:, 3]) = 73.0
525 histol_G_best_iter[iter, 3] = 73.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 7. 116. 123.]
530 cord_individual_obj[indivial_i,:] = [ 1. 6. 126. 132.]
531 cord_individual_obj[indivial_i,:] = [ 2. 6. 95. 101.]
532 cord_individual_obj[indivial_i,:] = [ 3. 8. 143. 151.]
533 cord_individual_obj[indivial_i,:] = [ 4. 10. 172. 182.]
534 cord_individual_obj[indivial_i,:] = [ 5. 7. 72. 79.]
535 cord_individual_obj[indivial_i,:] = [ 6. 8. 110. 118.]
536 cord_individual_obj[indivial_i,:] = [ 7. 10. 125. 135.]
537 cord_individual_obj[indivial_i,:] = [ 8. 8. 119. 127.]
538 cord_individual_obj[indivial_i,:] = [ 9. 6. 147. 153.]
539 cord_individual_obj[indivial_i,:] = [ 10. 7. 98. 105.]
540 cord_individual_obj[indivial_i,:] = [ 11. 8. 103. 111.]
541 cord_individual_obj[indivial_i,:] = [ 12. 7. 133. 140.]
542 cord_individual_obj[indivial_i,:] = [ 13. 7. 105. 112.]
543 cord_individual_obj[indivial_i,:] = [ 14. 7. 70. 77.]
544 cord_individual_obj[indivial_i,:] = [ 15. 8. 107. 115.]
545 cord_individual_obj[indivial_i,:] = [ 16. 8. 141. 149.]
546 cord_individual_obj[indivial_i,:] = [ 17. 8. 117. 125.]
547 cord_individual_obj[indivial_i,:] = [ 18. 8. 135. 143.]
548 cord_individual_obj[indivial_i,:] = [ 19. 6. 124. 130.]
549 cord_individual_obj[indivial_i,:] = [ 20. 7. 64. 71.]
550 cord_individual_obj[indivial_i,:] = [ 21. 9. 144. 153.]
551 cord_individual_obj[indivial_i,:] = [ 22. 6. 105. 111.]
552 cord_individual_obj[indivial_i,:] = [ 23. 6. 67. 73.]
553 cord_individual_obj[indivial_i,:] = [ 24. 8. 106. 114.]
554
555 min(cord_individual_obj[:, 3]) = 71.0
556 histol_G_best_iter[iter, 3] = 71.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 7. 120. 127.]
561 cord_individual_obj[indivial_i,:] = [ 1. 8. 139. 147.]
562 cord_individual_obj[indivial_i,:] = [ 2. 7. 138. 145.]
563 cord_individual_obj[indivial_i,:] = [ 3. 7. 135. 142.]
564 cord_individual_obj[indivial_i,:] = [ 4. 7. 64. 71.]
565 cord_individual_obj[indivial_i,:] = [ 5. 7. 267. 274.]
566 cord_individual_obj[indivial_i,:] = [ 6. 7. 168. 175.]
567 cord_individual_obj[indivial_i,:] = [ 7. 9. 148. 157.]
568 cord_individual_obj[indivial_i,:] = [ 8. 8. 119. 127.]
569 cord_individual_obj[indivial_i,:] = [ 9. 7. 186. 193.]
570 cord_individual_obj[indivial_i,:] = [ 10. 7. 123. 130.]
571 cord_individual_obj[indivial_i,:] = [ 11. 7. 127. 134.]
572 cord_individual_obj[indivial_i,:] = [ 12. 9. 166. 175.]
573 cord_individual_obj[indivial_i,:] = [ 13. 10. 165. 175.]
574 cord_individual_obj[indivial_i,:] = [ 14. 8. 89. 97.]
575 cord_individual_obj[indivial_i,:] = [ 15. 6. 175. 181.]
576 cord_individual_obj[indivial_i,:] = [ 16. 8. 130. 138.]
577 cord_individual_obj[indivial_i,:] = [ 17. 8. 183. 191.]
578 cord_individual_obj[indivial_i,:] = [ 18. 9. 134. 143.]
579 cord_individual_obj[indivial_i,:] = [ 19. 9. 211. 220.]
580 cord_individual_obj[indivial_i,:] = [ 20. 7. 186. 193.]
581 cord_individual_obj[indivial_i,:] = [ 21. 8. 108. 116.]
582 cord_individual_obj[indivial_i,:] = [ 22. 8. 136. 144.]
583 cord_individual_obj[indivial_i,:] = [ 23. 7. 96. 103.]

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584     cord_individual_obj[indivial_i, :] = [ 24.  8. 115. 123.]
585
586     min(cord_individual_obj[:, 3]) = 71.0
587     historl_G_best_iter[iter, 3] = 71.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0.  7. 130. 137.]
592     cord_individual_obj[indivial_i, :] = [ 1.  9. 119. 128.]
593     cord_individual_obj[indivial_i, :] = [ 2.  7. 129. 136.]
594     cord_individual_obj[indivial_i, :] = [ 3.  7. 122. 129.]
595     cord_individual_obj[indivial_i, :] = [ 4.  7. 183. 190.]
596     cord_individual_obj[indivial_i, :] = [ 5.  7. 64. 71.]
597     cord_individual_obj[indivial_i, :] = [ 6.  7. 130. 137.]
598     cord_individual_obj[indivial_i, :] = [ 7.  8. 120. 128.]
599     cord_individual_obj[indivial_i, :] = [ 8.  8. 135. 143.]
600     cord_individual_obj[indivial_i, :] = [ 9.  7. 178. 185.]
601     cord_individual_obj[indivial_i, :] = [ 10. 7. 117. 124.]
602     cord_individual_obj[indivial_i, :] = [ 11. 8. 159. 167.]
603     cord_individual_obj[indivial_i, :] = [ 12. 10. 134. 144.]
604     cord_individual_obj[indivial_i, :] = [ 13. 7. 126. 133.]
605     cord_individual_obj[indivial_i, :] = [ 14. 9. 121. 130.]
606     cord_individual_obj[indivial_i, :] = [ 15. 7. 119. 126.]
607     cord_individual_obj[indivial_i, :] = [ 16. 8. 141. 149.]
608     cord_individual_obj[indivial_i, :] = [ 17. 8. 98. 106.]
609     cord_individual_obj[indivial_i, :] = [ 18. 9. 113. 122.]
610     cord_individual_obj[indivial_i, :] = [ 19. 6. 111. 117.]
611     cord_individual_obj[indivial_i, :] = [ 20. 9. 194. 203.]
612     cord_individual_obj[indivial_i, :] = [ 21. 7. 138. 145.]
613     cord_individual_obj[indivial_i, :] = [ 22. 7. 136. 143.]
614     cord_individual_obj[indivial_i, :] = [ 23. 9. 149. 158.]
615     cord_individual_obj[indivial_i, :] = [ 24. 8. 116. 124.]
616
617     min(cord_individual_obj[:, 3]) = 71.0
618     historl_G_best_iter[iter, 3] = 71.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0.  6. 90. 96.]
623     cord_individual_obj[indivial_i, :] = [ 1.  9. 125. 134.]
624     cord_individual_obj[indivial_i, :] = [ 2.  7. 127. 134.]
625     cord_individual_obj[indivial_i, :] = [ 3.  8. 124. 132.]
626     cord_individual_obj[indivial_i, :] = [ 4.  9. 194. 203.]
627     cord_individual_obj[indivial_i, :] = [ 5.  8. 154. 162.]
628     cord_individual_obj[indivial_i, :] = [ 6.  6. 139. 145.]
629     cord_individual_obj[indivial_i, :] = [ 7.  6. 122. 128.]
630     cord_individual_obj[indivial_i, :] = [ 8.  7. 93. 100.]
631     cord_individual_obj[indivial_i, :] = [ 9.  8. 165. 173.]
632     cord_individual_obj[indivial_i, :] = [ 10. 7. 139. 146.]
633     cord_individual_obj[indivial_i, :] = [ 11. 6. 139. 145.]
634     cord_individual_obj[indivial_i, :] = [ 12. 9. 156. 165.]
635     cord_individual_obj[indivial_i, :] = [ 13. 8. 129. 137.]
636     cord_individual_obj[indivial_i, :] = [ 14. 8. 108. 116.]
637     cord_individual_obj[indivial_i, :] = [ 15. 7. 134. 141.]
638     cord_individual_obj[indivial_i, :] = [ 16. 8. 126. 134.]
639     cord_individual_obj[indivial_i, :] = [ 17. 9. 114. 123.]
640     cord_individual_obj[indivial_i, :] = [ 18. 6. 113. 119.]
641     cord_individual_obj[indivial_i, :] = [ 19. 8. 137. 145.]
642     cord_individual_obj[indivial_i, :] = [ 20. 7. 64. 71.]
643     cord_individual_obj[indivial_i, :] = [ 21. 7. 139. 146.]
644     cord_individual_obj[indivial_i, :] = [ 22. 6. 121. 127.]
645     cord_individual_obj[indivial_i, :] = [ 23. 7. 130. 137.]
646     cord_individual_obj[indivial_i, :] = [ 24. 8. 156. 164.]
647
648     min(cord_individual_obj[:, 3]) = 71.0
649     historl_G_best_iter[iter, 3] = 71.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0.  7. 144. 151.]
654     cord_individual_obj[indivial_i, :] = [ 1.  7. 139. 146.]
655     cord_individual_obj[indivial_i, :] = [ 2.  7. 115. 122.]
656     cord_individual_obj[indivial_i, :] = [ 3.  8. 147. 155.]
657     cord_individual_obj[indivial_i, :] = [ 4.  7. 64. 71.]
658     cord_individual_obj[indivial_i, :] = [ 5.  6. 154. 160.]
659     cord_individual_obj[indivial_i, :] = [ 6.  9. 127. 136.]
660     cord_individual_obj[indivial_i, :] = [ 7.  9. 111. 120.]
661     cord_individual_obj[indivial_i, :] = [ 8.  8. 95. 103.]
662     cord_individual_obj[indivial_i, :] = [ 9.  7. 171. 178.]
663     cord_individual_obj[indivial_i, :] = [ 10. 11. 118. 129.]
664     cord_individual_obj[indivial_i, :] = [ 11. 7. 132. 139.]
665     cord_individual_obj[indivial_i, :] = [ 12. 8. 204. 212.]
666     cord_individual_obj[indivial_i, :] = [ 13. 8. 108. 116.]
667     cord_individual_obj[indivial_i, :] = [ 14. 7. 217. 224.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 7. 172. 179.]
669 cord_individual_obj[indivial_i,:] = [ 16. 7. 106. 113.]
670 cord_individual_obj[indivial_i,:] = [ 17. 8. 100. 108.]
671 cord_individual_obj[indivial_i,:] = [ 18. 8. 112. 120.]
672 cord_individual_obj[indivial_i,:] = [ 19. 10. 120. 130.]
673 cord_individual_obj[indivial_i,:] = [ 20. 7. 186. 193.]
674 cord_individual_obj[indivial_i,:] = [ 21. 9. 108. 117.]
675 cord_individual_obj[indivial_i,:] = [ 22. 9. 126. 135.]
676 cord_individual_obj[indivial_i,:] = [ 23. 8. 104. 112.]
677 cord_individual_obj[indivial_i,:] = [ 24. 8. 121. 129.]
678
679 min(cord_individual_obj[:,3]) = 71.0
680 historl_G_best_iter[iter,3] = 71.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 192.0
689 Proportion_of_area = 0.17777777777777778
690 BEST_CHROM =
691 berth: [14.5 16.5 8. 23.5 23.5 3. 9.5 3. 12.5 14.5 1.5 8. 21.5 3. ]
692 time: [2. 0. 0. 2. 4. 3. 4. 0. 0. 5. 2. 5. 0. 5. ]
693 num_QC: [5. 3. 4. 3. 4. 4. 3. 5. 4. 2. 3. 3. 4. 3. ]
694 Objective function values and some other indicators:
695 Obj0 = 7.00 Obj1 = 64.00 Obj0 + Obj1 = 71.00
696 Total movement of crane: 0.00
697 Total waiting time in berth position: 32.00
698 Total index of q during berthing: 684.00
699 Specific arrangement for each vessel:
700 V_id: 0 li: 9.0 xi: 14.5 bow of i: 10.0 tail of i: 19.0 gama_i0: 2.0 gama_i1: 3
701 .0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 160.0 work
702 load_i: 160.0 work load gap_i: 0
703 V_id: 1 li: 3.0 xi: 16.5 bow of i: 15.0 tail of i: 18.0 gama_i0: 0.0 gama_i1: 0
704 .0 gama_i1 + 1: 1.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work
705 load_i: 60.0 work load gap_i: 0
706 V_id: 2 li: 4.0 xi: 8.0 bow of i: 6.0 tail of i: 10.0 gama_i0: 0.0 gama_i1: 1.0
707 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 160.0 work load_i:
708 160.0 work load gap_i: 0
709 V_id: 3 li: 9.0 xi: 23.5 bow of i: 19.0 tail of i: 28.0 gama_i0: 2.0 gama_i1: 3
710 .0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 100.0 work
711 load_i: 100.0 work load gap_i: 0
712 V_id: 4 li: 9.0 xi: 23.5 bow of i: 19.0 tail of i: 28.0 gama_i0: 4.0 gama_i1: 5
713 .0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 100.0 work
714 load_i: 100.0 work load gap_i: 0
715 V_id: 5 li: 6.0 xi: 3.0 bow of i: 0.0 tail of i: 6.0 gama_i0: 3.0 gama_i1: 4.0
716 .0 gama_i1 + 1: 5.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work load_i:
717 120.0 work load gap_i: 0
718 V_id: 6 li: 7.0 xi: 9.5 bow of i: 6.0 tail of i: 13.0 gama_i0: 4.0 gama_i1: 4.0
719 .0 gama_i1 + 1: 5.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work load_i:
720 60.0 work load gap_i: 0
721 V_id: 7 li: 6.0 xi: 3.0 bow of i: 0.0 tail of i: 6.0 gama_i0: 0.0 gama_i1: 1.0
722 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 160.0 work load_i:
723 160.0 work load gap_i: 0
724 V_id: 8 li: 5.0 xi: 12.5 bow of i: 10.0 tail of i: 15.0 gama_i0: 0.0 gama_i1: 0
725 .0 gama_i1 + 1: 1.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 80.0 work
726 load_i: 80.0 work load gap_i: 0
727 V_id: 9 li: 9.0 xi: 14.5 bow of i: 10.0 tail of i: 19.0 gama_i0: 5.0 gama_i1: 6
728 .0 gama_i1 + 1: 7.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work
729 load_i: 80.0 work load gap_i: 0
730 V_id: 10 li: 3.0 xi: 1.5 bow of i: 0.0 tail of i: 3.0 gama_i0: 2.0 gama_i1: 2.0
731 .0 gama_i1 + 1: 3.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work load_i:
732 60.0 work load gap_i: 0
733 V_id: 11 li: 4.0 xi: 8.0 bow of i: 6.0 tail of i: 10.0 gama_i0: 5.0 gama_i1: 7
734 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 140.0 work
735 load_i: 140.0 work load gap_i: 0
736 V_id: 12 li: 7.0 xi: 21.5 bow of i: 18.0 tail of i: 25.0 gama_i0: 0.0 gama_i1: 1
737 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 100.0 work
738 load_i: 100.0 work load gap_i: 0
739 V_id: 13 li: 6.0 xi: 3.0 bow of i: 0.0 tail of i: 6.0 gama_i0: 5.0 gama_i1: 7.0
740 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 160.0 work load_i:
741 160.0 work load gap_i: 0
742
743 Algorithm finished and the total CPU time: 377 s
744 End
745

```