

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 11. 124. 135.]
81 cord_individual_obj[indivial_i,:] = [ 17. 12. 140. 152.]
82 cord_individual_obj[indivial_i,:] = [ 18. 13. 158. 171.]
83 cord_individual_obj[indivial_i,:] = [ 19. 11. 138. 149.]
84 cord_individual_obj[indivial_i,:] = [ 20. 10. 124. 134.]
85 cord_individual_obj[indivial_i,:] = [ 21. 12. 188. 200.]
86 cord_individual_obj[indivial_i,:] = [ 22. 11. 142. 153.]
87 cord_individual_obj[indivial_i,:] = [ 23. 13. 190. 203.]
88 cord_individual_obj[indivial_i,:] = [ 24. 12. 153. 165.]
89
90 min(cord_individual_obj[:,3]) = 100.0
91 historl_G_best_iter[iter, 3] = 100.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 10. 164. 174.]
96 cord_individual_obj[indivial_i,:] = [ 1. 12. 131. 143.]
97 cord_individual_obj[indivial_i,:] = [ 2. 10. 172. 182.]
98 cord_individual_obj[indivial_i,:] = [ 3. 12. 128. 140.]
99 cord_individual_obj[indivial_i,:] = [ 4. 11. 141. 152.]
100 cord_individual_obj[indivial_i,:] = [ 5. 10. 198. 208.]
101 cord_individual_obj[indivial_i,:] = [ 6. 12. 185. 197.]
102 cord_individual_obj[indivial_i,:] = [ 7. 12. 193. 205.]
103 cord_individual_obj[indivial_i,:] = [ 8. 11. 199. 210.]
104 cord_individual_obj[indivial_i,:] = [ 9. 11. 155. 166.]
105 cord_individual_obj[indivial_i,:] = [ 10. 11. 89. 100.]
106 cord_individual_obj[indivial_i,:] = [ 11. 10. 143. 153.]
107 cord_individual_obj[indivial_i,:] = [ 12. 10. 170. 180.]
108 cord_individual_obj[indivial_i,:] = [ 13. 12. 129. 141.]
109 cord_individual_obj[indivial_i,:] = [ 14. 12. 228. 240.]
110 cord_individual_obj[indivial_i,:] = [ 15. 10. 220. 230.]
111 cord_individual_obj[indivial_i,:] = [ 16. 11. 150. 161.]
112 cord_individual_obj[indivial_i,:] = [ 17. 10. 163. 173.]
113 cord_individual_obj[indivial_i,:] = [ 18. 10. 145. 155.]
114 cord_individual_obj[indivial_i,:] = [ 19. 9. 89. 98.]
115 cord_individual_obj[indivial_i,:] = [ 20. 14. 132. 146.]
116 cord_individual_obj[indivial_i,:] = [ 21. 10. 98. 108.]
117 cord_individual_obj[indivial_i,:] = [ 22. 9. 175. 184.]
118 cord_individual_obj[indivial_i,:] = [ 23. 11. 180. 191.]
119 cord_individual_obj[indivial_i,:] = [ 24. 12. 140. 152.]
120
121 min(cord_individual_obj[:,3]) = 98.0
122 historl_G_best_iter[iter, 3] = 98.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 11. 157. 168.]
127 cord_individual_obj[indivial_i,:] = [ 1. 11. 180. 191.]
128 cord_individual_obj[indivial_i,:] = [ 2. 12. 130. 142.]
129 cord_individual_obj[indivial_i,:] = [ 3. 11. 154. 165.]
130 cord_individual_obj[indivial_i,:] = [ 4. 9. 162. 171.]
131 cord_individual_obj[indivial_i,:] = [ 5. 10. 96. 106.]
132 cord_individual_obj[indivial_i,:] = [ 6. 13. 128. 141.]
133 cord_individual_obj[indivial_i,:] = [ 7. 11. 163. 174.]
134 cord_individual_obj[indivial_i,:] = [ 8. 10. 178. 188.]
135 cord_individual_obj[indivial_i,:] = [ 9. 11. 131. 142.]
136 cord_individual_obj[indivial_i,:] = [ 10. 13. 126. 139.]
137 cord_individual_obj[indivial_i,:] = [ 11. 11. 177. 188.]
138 cord_individual_obj[indivial_i,:] = [ 12. 11. 168. 179.]
139 cord_individual_obj[indivial_i,:] = [ 13. 10. 156. 166.]
140 cord_individual_obj[indivial_i,:] = [ 14. 9. 89. 98.]
141 cord_individual_obj[indivial_i,:] = [ 15. 9. 158. 167.]
142 cord_individual_obj[indivial_i,:] = [ 16. 12. 133. 145.]
143 cord_individual_obj[indivial_i,:] = [ 17. 10. 166. 176.]
144 cord_individual_obj[indivial_i,:] = [ 18. 13. 118. 131.]
145 cord_individual_obj[indivial_i,:] = [ 19. 11. 147. 158.]
146 cord_individual_obj[indivial_i,:] = [ 20. 11. 148. 159.]
147 cord_individual_obj[indivial_i,:] = [ 21. 10. 207. 217.]
148 cord_individual_obj[indivial_i,:] = [ 22. 11. 225. 236.]
149 cord_individual_obj[indivial_i,:] = [ 23. 10. 112. 122.]
150 cord_individual_obj[indivial_i,:] = [ 24. 10. 175. 185.]
151
152 min(cord_individual_obj[:,3]) = 98.0
153 historl_G_best_iter[iter, 3] = 98.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 11. 155. 166.]
158 cord_individual_obj[indivial_i,:] = [ 1. 10. 147. 157.]
159 cord_individual_obj[indivial_i,:] = [ 2. 11. 145. 156.]
160 cord_individual_obj[indivial_i,:] = [ 3. 10. 121. 131.]
161 cord_individual_obj[indivial_i,:] = [ 4. 10. 112. 122.]
162 cord_individual_obj[indivial_i,:] = [ 5. 9. 167. 176.]
163 cord_individual_obj[indivial_i,:] = [ 6. 11. 146. 157.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 10. 152. 162.]
165 cord_individual_obj[indivial_i,:] = [ 8. 13. 187. 200.]
166 cord_individual_obj[indivial_i,:] = [ 9. 10. 160. 170.]
167 cord_individual_obj[indivial_i,:] = [10. 11. 138. 149.]
168 cord_individual_obj[indivial_i,:] = [11. 9. 163. 172.]
169 cord_individual_obj[indivial_i,:] = [12. 10. 148. 158.]
170 cord_individual_obj[indivial_i,:] = [13. 11. 248. 259.]
171 cord_individual_obj[indivial_i,:] = [14. 9. 225. 234.]
172 cord_individual_obj[indivial_i,:] = [15. 12. 195. 207.]
173 cord_individual_obj[indivial_i,:] = [16. 11. 127. 138.]
174 cord_individual_obj[indivial_i,:] = [17. 10. 183. 193.]
175 cord_individual_obj[indivial_i,:] = [18. 11. 123. 134.]
176 cord_individual_obj[indivial_i,:] = [19. 9. 186. 195.]
177 cord_individual_obj[indivial_i,:] = [20. 10. 189. 199.]
178 cord_individual_obj[indivial_i,:] = [21. 11. 175. 186.]
179 cord_individual_obj[indivial_i,:] = [22. 9. 89. 98.]
180 cord_individual_obj[indivial_i,:] = [23. 9. 116. 125.]
181 cord_individual_obj[indivial_i,:] = [24. 10. 138. 148.]
182
183 min(cord_individual_obj[:,3]) = 98.0
184 historl_G_best_iter[iter,3] = 98.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 11. 125. 136.]
189 cord_individual_obj[indivial_i,:] = [ 1. 11. 214. 225.]
190 cord_individual_obj[indivial_i,:] = [ 2. 12. 150. 162.]
191 cord_individual_obj[indivial_i,:] = [ 3. 10. 152. 162.]
192 cord_individual_obj[indivial_i,:] = [ 4. 10. 129. 139.]
193 cord_individual_obj[indivial_i,:] = [ 5. 11. 162. 173.]
194 cord_individual_obj[indivial_i,:] = [ 6. 12. 136. 148.]
195 cord_individual_obj[indivial_i,:] = [ 7. 12. 185. 197.]
196 cord_individual_obj[indivial_i,:] = [ 8. 12. 184. 196.]
197 cord_individual_obj[indivial_i,:] = [ 9. 11. 166. 177.]
198 cord_individual_obj[indivial_i,:] = [10. 12. 134. 146.]
199 cord_individual_obj[indivial_i,:] = [11. 13. 144. 157.]
200 cord_individual_obj[indivial_i,:] = [12. 10. 175. 185.]
201 cord_individual_obj[indivial_i,:] = [13. 9. 89. 98.]
202 cord_individual_obj[indivial_i,:] = [14. 10. 118. 128.]
203 cord_individual_obj[indivial_i,:] = [15. 9. 187. 196.]
204 cord_individual_obj[indivial_i,:] = [16. 11. 239. 250.]
205 cord_individual_obj[indivial_i,:] = [17. 11. 125. 136.]
206 cord_individual_obj[indivial_i,:] = [18. 11. 165. 176.]
207 cord_individual_obj[indivial_i,:] = [19. 10. 106. 116.]
208 cord_individual_obj[indivial_i,:] = [20. 11. 219. 230.]
209 cord_individual_obj[indivial_i,:] = [21. 12. 118. 130.]
210 cord_individual_obj[indivial_i,:] = [22. 9. 152. 161.]
211 cord_individual_obj[indivial_i,:] = [23. 11. 137. 148.]
212 cord_individual_obj[indivial_i,:] = [24. 10. 160. 170.]
213
214 min(cord_individual_obj[:,3]) = 98.0
215 historl_G_best_iter[iter,3] = 98.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 13. 168. 181.]
220 cord_individual_obj[indivial_i,:] = [ 1. 10. 195. 205.]
221 cord_individual_obj[indivial_i,:] = [ 2. 11. 175. 186.]
222 cord_individual_obj[indivial_i,:] = [ 3. 10. 225. 235.]
223 cord_individual_obj[indivial_i,:] = [ 4. 10. 203. 213.]
224 cord_individual_obj[indivial_i,:] = [ 5. 11. 147. 158.]
225 cord_individual_obj[indivial_i,:] = [ 6. 12. 180. 192.]
226 cord_individual_obj[indivial_i,:] = [ 7. 11. 213. 224.]
227 cord_individual_obj[indivial_i,:] = [ 8. 10. 188. 198.]
228 cord_individual_obj[indivial_i,:] = [ 9. 10. 174. 184.]
229 cord_individual_obj[indivial_i,:] = [10. 11. 112. 123.]
230 cord_individual_obj[indivial_i,:] = [11. 11. 153. 164.]
231 cord_individual_obj[indivial_i,:] = [12. 9. 106. 115.]
232 cord_individual_obj[indivial_i,:] = [13. 10. 155. 165.]
233 cord_individual_obj[indivial_i,:] = [14. 10. 154. 164.]
234 cord_individual_obj[indivial_i,:] = [15. 9. 148. 157.]
235 cord_individual_obj[indivial_i,:] = [16. 9. 89. 98.]
236 cord_individual_obj[indivial_i,:] = [17. 12. 143. 155.]
237 cord_individual_obj[indivial_i,:] = [18. 10. 143. 153.]
238 cord_individual_obj[indivial_i,:] = [19. 11. 171. 182.]
239 cord_individual_obj[indivial_i,:] = [20. 9. 117. 126.]
240 cord_individual_obj[indivial_i,:] = [21. 10. 148. 158.]
241 cord_individual_obj[indivial_i,:] = [22. 10. 166. 176.]
242 cord_individual_obj[indivial_i,:] = [23. 9. 141. 150.]
243 cord_individual_obj[indivial_i,:] = [24. 10. 149. 159.]
244
245 min(cord_individual_obj[:,3]) = 98.0
246 historl_G_best_iter[iter,3] = 98.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 11. 148. 159.]
251 cord_individual_obj[indivial_i, :] = [ 1. 9. 114. 123.]
252 cord_individual_obj[indivial_i, :] = [ 2. 11. 145. 156.]
253 cord_individual_obj[indivial_i, :] = [ 3. 9. 89. 98.]
254 cord_individual_obj[indivial_i, :] = [ 4. 11. 203. 214.]
255 cord_individual_obj[indivial_i, :] = [ 5. 10. 161. 171.]
256 cord_individual_obj[indivial_i, :] = [ 6. 8. 104. 112.]
257 cord_individual_obj[indivial_i, :] = [ 7. 11. 186. 197.]
258 cord_individual_obj[indivial_i, :] = [ 8. 12. 179. 191.]
259 cord_individual_obj[indivial_i, :] = [ 9. 10. 149. 159.]
260 cord_individual_obj[indivial_i, :] = [ 10. 11. 241. 252.]
261 cord_individual_obj[indivial_i, :] = [ 11. 11. 157. 168.]
262 cord_individual_obj[indivial_i, :] = [ 12. 12. 95. 107.]
263 cord_individual_obj[indivial_i, :] = [ 13. 11. 136. 147.]
264 cord_individual_obj[indivial_i, :] = [ 14. 10. 114. 124.]
265 cord_individual_obj[indivial_i, :] = [ 15. 11. 135. 146.]
266 cord_individual_obj[indivial_i, :] = [ 16. 10. 140. 150.]
267 cord_individual_obj[indivial_i, :] = [ 17. 12. 121. 133.]
268 cord_individual_obj[indivial_i, :] = [ 18. 11. 155. 166.]
269 cord_individual_obj[indivial_i, :] = [ 19. 11. 105. 116.]
270 cord_individual_obj[indivial_i, :] = [ 20. 9. 198. 207.]
271 cord_individual_obj[indivial_i, :] = [ 21. 9. 169. 178.]
272 cord_individual_obj[indivial_i, :] = [ 22. 8. 228. 236.]
273 cord_individual_obj[indivial_i, :] = [ 23. 9. 167. 176.]
274 cord_individual_obj[indivial_i, :] = [ 24. 10. 144. 154.]
275

276 min(cord_individual_obj[:, 3]) = 98.0
277 historl_G_best_iter[iter, 3] = 98.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 11. 190. 201.]
282 cord_individual_obj[indivial_i, :] = [ 1. 9. 152. 161.]
283 cord_individual_obj[indivial_i, :] = [ 2. 13. 129. 142.]
284 cord_individual_obj[indivial_i, :] = [ 3. 13. 179. 192.]
285 cord_individual_obj[indivial_i, :] = [ 4. 11. 135. 146.]
286 cord_individual_obj[indivial_i, :] = [ 5. 10. 161. 171.]
287 cord_individual_obj[indivial_i, :] = [ 6. 13. 173. 186.]
288 cord_individual_obj[indivial_i, :] = [ 7. 11. 96. 107.]
289 cord_individual_obj[indivial_i, :] = [ 8. 11. 130. 141.]
290 cord_individual_obj[indivial_i, :] = [ 9. 11. 155. 166.]
291 cord_individual_obj[indivial_i, :] = [10. 9. 89. 98.]
292 cord_individual_obj[indivial_i, :] = [11. 12. 189. 201.]
293 cord_individual_obj[indivial_i, :] = [12. 10. 125. 135.]
294 cord_individual_obj[indivial_i, :] = [13. 12. 107. 119.]
295 cord_individual_obj[indivial_i, :] = [14. 11. 176. 187.]
296 cord_individual_obj[indivial_i, :] = [15. 10. 184. 194.]
297 cord_individual_obj[indivial_i, :] = [16. 10. 145. 155.]
298 cord_individual_obj[indivial_i, :] = [17. 10. 91. 101.]
299 cord_individual_obj[indivial_i, :] = [18. 11. 115. 126.]
300 cord_individual_obj[indivial_i, :] = [19. 11. 111. 122.]
301 cord_individual_obj[indivial_i, :] = [20. 11. 171. 182.]
302 cord_individual_obj[indivial_i, :] = [21. 10. 153. 163.]
303 cord_individual_obj[indivial_i, :] = [22. 9. 124. 133.]
304 cord_individual_obj[indivial_i, :] = [23. 11. 126. 137.]
305 cord_individual_obj[indivial_i, :] = [24. 10. 102. 112.]
306

307 min(cord_individual_obj[:, 3]) = 98.0
308 historl_G_best_iter[iter, 3] = 98.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 9. 89. 98.]
313 cord_individual_obj[indivial_i, :] = [ 1. 9. 158. 167.]
314 cord_individual_obj[indivial_i, :] = [ 2. 11. 135. 146.]
315 cord_individual_obj[indivial_i, :] = [ 3. 9. 122. 131.]
316 cord_individual_obj[indivial_i, :] = [ 4. 11. 90. 101.]
317 cord_individual_obj[indivial_i, :] = [ 5. 10. 233. 243.]
318 cord_individual_obj[indivial_i, :] = [ 6. 13. 124. 137.]
319 cord_individual_obj[indivial_i, :] = [ 7. 12. 108. 120.]
320 cord_individual_obj[indivial_i, :] = [ 8. 13. 123. 136.]
321 cord_individual_obj[indivial_i, :] = [ 9. 10. 205. 215.]
322 cord_individual_obj[indivial_i, :] = [10. 11. 187. 198.]
323 cord_individual_obj[indivial_i, :] = [11. 10. 193. 203.]
324 cord_individual_obj[indivial_i, :] = [12. 10. 127. 137.]
325 cord_individual_obj[indivial_i, :] = [13. 9. 154. 163.]
326 cord_individual_obj[indivial_i, :] = [14. 11. 117. 128.]
327 cord_individual_obj[indivial_i, :] = [15. 10. 181. 191.]
328 cord_individual_obj[indivial_i, :] = [16. 12. 184. 196.]
329 cord_individual_obj[indivial_i, :] = [17. 10. 124. 134.]
330 cord_individual_obj[indivial_i, :] = [18. 11. 150. 161.]
331 cord_individual_obj[indivial_i, :] = [19. 11. 153. 164.]

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332 cord_individual_obj[indivial_i, :] = [ 20. 11. 159. 170.]
333 cord_individual_obj[indivial_i, :] = [ 21. 12. 202. 214.]
334 cord_individual_obj[indivial_i, :] = [ 22. 10. 145. 155.]
335 cord_individual_obj[indivial_i, :] = [ 23. 10. 174. 184.]
336 cord_individual_obj[indivial_i, :] = [ 24. 10. 148. 158.]
337
338 min(cord_individual_obj[:, 3]) = 98.0
339 histol_G_best_iter[iter, 3] = 98.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 10. 159. 169.]
344 cord_individual_obj[indivial_i, :] = [ 1. 11. 131. 142.]
345 cord_individual_obj[indivial_i, :] = [ 2. 12. 144. 156.]
346 cord_individual_obj[indivial_i, :] = [ 3. 12. 195. 207.]
347 cord_individual_obj[indivial_i, :] = [ 4. 11. 111. 122.]
348 cord_individual_obj[indivial_i, :] = [ 5. 9. 89. 98.]
349 cord_individual_obj[indivial_i, :] = [ 6. 11. 114. 125.]
350 cord_individual_obj[indivial_i, :] = [ 7. 12. 110. 122.]
351 cord_individual_obj[indivial_i, :] = [ 8. 11. 147. 158.]
352 cord_individual_obj[indivial_i, :] = [ 9. 10. 109. 119.]
353 cord_individual_obj[indivial_i, :] = [ 10. 12. 175. 187.]
354 cord_individual_obj[indivial_i, :] = [ 11. 12. 109. 121.]
355 cord_individual_obj[indivial_i, :] = [ 12. 11. 202. 213.]
356 cord_individual_obj[indivial_i, :] = [ 13. 10. 165. 175.]
357 cord_individual_obj[indivial_i, :] = [ 14. 11. 213. 224.]
358 cord_individual_obj[indivial_i, :] = [ 15. 11. 182. 193.]
359 cord_individual_obj[indivial_i, :] = [ 16. 13. 138. 151.]
360 cord_individual_obj[indivial_i, :] = [ 17. 12. 120. 132.]
361 cord_individual_obj[indivial_i, :] = [ 18. 11. 106. 117.]
362 cord_individual_obj[indivial_i, :] = [ 19. 11. 91. 102.]
363 cord_individual_obj[indivial_i, :] = [ 20. 11. 152. 163.]
364 cord_individual_obj[indivial_i, :] = [ 21. 10. 165. 175.]
365 cord_individual_obj[indivial_i, :] = [ 22. 10. 146. 156.]
366 cord_individual_obj[indivial_i, :] = [ 23. 9. 112. 121.]
367 cord_individual_obj[indivial_i, :] = [ 24. 10. 104. 114.]
368
369 min(cord_individual_obj[:, 3]) = 98.0
370 histol_G_best_iter[iter, 3] = 98.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 10. 112. 122.]
375 cord_individual_obj[indivial_i, :] = [ 1. 11. 98. 109.]
376 cord_individual_obj[indivial_i, :] = [ 2. 13. 145. 158.]
377 cord_individual_obj[indivial_i, :] = [ 3. 12. 192. 204.]
378 cord_individual_obj[indivial_i, :] = [ 4. 11. 177. 188.]
379 cord_individual_obj[indivial_i, :] = [ 5. 8. 182. 190.]
380 cord_individual_obj[indivial_i, :] = [ 6. 11. 131. 142.]
381 cord_individual_obj[indivial_i, :] = [ 7. 13. 108. 121.]
382 cord_individual_obj[indivial_i, :] = [ 8. 10. 88. 98.]
383 cord_individual_obj[indivial_i, :] = [ 9. 10. 166. 176.]
384 cord_individual_obj[indivial_i, :] = [ 10. 11. 149. 160.]
385 cord_individual_obj[indivial_i, :] = [ 11. 11. 193. 204.]
386 cord_individual_obj[indivial_i, :] = [ 12. 9. 155. 164.]
387 cord_individual_obj[indivial_i, :] = [ 13. 10. 128. 138.]
388 cord_individual_obj[indivial_i, :] = [ 14. 9. 89. 98.]
389 cord_individual_obj[indivial_i, :] = [ 15. 9. 200. 209.]
390 cord_individual_obj[indivial_i, :] = [ 16. 11. 126. 137.]
391 cord_individual_obj[indivial_i, :] = [ 17. 10. 201. 211.]
392 cord_individual_obj[indivial_i, :] = [ 18. 13. 149. 162.]
393 cord_individual_obj[indivial_i, :] = [ 19. 11. 134. 145.]
394 cord_individual_obj[indivial_i, :] = [ 20. 11. 213. 224.]
395 cord_individual_obj[indivial_i, :] = [ 21. 10. 143. 153.]
396 cord_individual_obj[indivial_i, :] = [ 22. 9. 178. 187.]
397 cord_individual_obj[indivial_i, :] = [ 23. 9. 156. 165.]
398 cord_individual_obj[indivial_i, :] = [ 24. 12. 177. 189.]
399
400 min(cord_individual_obj[:, 3]) = 98.0
401 histol_G_best_iter[iter, 3] = 98.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0. 12. 138. 150.]
406 cord_individual_obj[indivial_i, :] = [ 1. 8. 148. 156.]
407 cord_individual_obj[indivial_i, :] = [ 2. 13. 155. 168.]
408 cord_individual_obj[indivial_i, :] = [ 3. 13. 158. 171.]
409 cord_individual_obj[indivial_i, :] = [ 4. 10. 143. 153.]
410 cord_individual_obj[indivial_i, :] = [ 5. 11. 126. 137.]
411 cord_individual_obj[indivial_i, :] = [ 6. 11. 163. 174.]
412 cord_individual_obj[indivial_i, :] = [ 7. 10. 138. 148.]
413 cord_individual_obj[indivial_i, :] = [ 8. 11. 106. 117.]
414 cord_individual_obj[indivial_i, :] = [ 9. 9. 162. 171.]
415 cord_individual_obj[indivial_i, :] = [ 10. 12. 169. 181.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 13. 143. 156.]
417 cord_individual_obj[indivial_i,:] = [ 12. 11. 181. 192.]
418 cord_individual_obj[indivial_i,:] = [ 13. 9. 139. 148.]
419 cord_individual_obj[indivial_i,:] = [ 14. 10. 179. 189.]
420 cord_individual_obj[indivial_i,:] = [ 15. 12. 231. 243.]
421 cord_individual_obj[indivial_i,:] = [ 16. 10. 103. 113.]
422 cord_individual_obj[indivial_i,:] = [ 17. 11. 165. 176.]
423 cord_individual_obj[indivial_i,:] = [ 18. 11. 139. 150.]
424 cord_individual_obj[indivial_i,:] = [ 19. 10. 136. 146.]
425 cord_individual_obj[indivial_i,:] = [ 20. 10. 88. 98.]
426 cord_individual_obj[indivial_i,:] = [ 21. 9. 126. 135.]
427 cord_individual_obj[indivial_i,:] = [ 22. 9. 109. 118.]
428 cord_individual_obj[indivial_i,:] = [ 23. 11. 171. 182.]
429 cord_individual_obj[indivial_i,:] = [ 24. 10. 121. 131.]
430
431 min(cord_individual_obj[:,3]) = 98.0
432 histol_G_best_iter[iter,3] = 98.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 10. 218. 228.]
437 cord_individual_obj[indivial_i,:] = [ 1. 9. 203. 212.]
438 cord_individual_obj[indivial_i,:] = [ 2. 12. 141. 153.]
439 cord_individual_obj[indivial_i,:] = [ 3. 11. 122. 133.]
440 cord_individual_obj[indivial_i,:] = [ 4. 12. 215. 227.]
441 cord_individual_obj[indivial_i,:] = [ 5. 10. 117. 127.]
442 cord_individual_obj[indivial_i,:] = [ 6. 14. 186. 200.]
443 cord_individual_obj[indivial_i,:] = [ 7. 11. 123. 134.]
444 cord_individual_obj[indivial_i,:] = [ 8. 13. 115. 128.]
445 cord_individual_obj[indivial_i,:] = [ 9. 9. 186. 195.]
446 cord_individual_obj[indivial_i,:] = [ 10. 11. 156. 167.]
447 cord_individual_obj[indivial_i,:] = [ 11. 10. 168. 178.]
448 cord_individual_obj[indivial_i,:] = [ 12. 10. 190. 200.]
449 cord_individual_obj[indivial_i,:] = [ 13. 12. 134. 146.]
450 cord_individual_obj[indivial_i,:] = [ 14. 10. 147. 157.]
451 cord_individual_obj[indivial_i,:] = [ 15. 10. 88. 98.]
452 cord_individual_obj[indivial_i,:] = [ 16. 10. 200. 210.]
453 cord_individual_obj[indivial_i,:] = [ 17. 12. 138. 150.]
454 cord_individual_obj[indivial_i,:] = [ 18. 10. 111. 121.]
455 cord_individual_obj[indivial_i,:] = [ 19. 12. 131. 143.]
456 cord_individual_obj[indivial_i,:] = [ 20. 11. 174. 185.]
457 cord_individual_obj[indivial_i,:] = [ 21. 12. 155. 167.]
458 cord_individual_obj[indivial_i,:] = [ 22. 10. 162. 172.]
459 cord_individual_obj[indivial_i,:] = [ 23. 11. 217. 228.]
460 cord_individual_obj[indivial_i,:] = [ 24. 10. 163. 173.]
461
462 min(cord_individual_obj[:,3]) = 98.0
463 histol_G_best_iter[iter,3] = 98.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 10. 88. 98.]
468 cord_individual_obj[indivial_i,:] = [ 1. 9. 120. 129.]
469 cord_individual_obj[indivial_i,:] = [ 2. 9. 111. 120.]
470 cord_individual_obj[indivial_i,:] = [ 3. 11. 100. 111.]
471 cord_individual_obj[indivial_i,:] = [ 4. 10. 108. 118.]
472 cord_individual_obj[indivial_i,:] = [ 5. 9. 155. 164.]
473 cord_individual_obj[indivial_i,:] = [ 6. 10. 158. 168.]
474 cord_individual_obj[indivial_i,:] = [ 7. 11. 179. 190.]
475 cord_individual_obj[indivial_i,:] = [ 8. 10. 138. 148.]
476 cord_individual_obj[indivial_i,:] = [ 9. 9. 109. 118.]
477 cord_individual_obj[indivial_i,:] = [ 10. 11. 134. 145.]
478 cord_individual_obj[indivial_i,:] = [ 11. 12. 205. 217.]
479 cord_individual_obj[indivial_i,:] = [ 12. 12. 181. 193.]
480 cord_individual_obj[indivial_i,:] = [ 13. 9. 194. 203.]
481 cord_individual_obj[indivial_i,:] = [ 14. 11. 137. 148.]
482 cord_individual_obj[indivial_i,:] = [ 15. 14. 109. 123.]
483 cord_individual_obj[indivial_i,:] = [ 16. 8. 210. 218.]
484 cord_individual_obj[indivial_i,:] = [ 17. 10. 127. 137.]
485 cord_individual_obj[indivial_i,:] = [ 18. 10. 104. 114.]
486 cord_individual_obj[indivial_i,:] = [ 19. 11. 128. 139.]
487 cord_individual_obj[indivial_i,:] = [ 20. 12. 161. 173.]
488 cord_individual_obj[indivial_i,:] = [ 21. 11. 136. 147.]
489 cord_individual_obj[indivial_i,:] = [ 22. 9. 169. 178.]
490 cord_individual_obj[indivial_i,:] = [ 23. 10. 73. 83.]
491 cord_individual_obj[indivial_i,:] = [ 24. 10. 110. 120.]
492
493 min(cord_individual_obj[:,3]) = 83.0
494 histol_G_best_iter[iter,3] = 83.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 12. 145. 157.]
499 cord_individual_obj[indivial_i,:] = [ 1. 10. 136. 146.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 10. 184. 194.]
501 cord_individual_obj[indivial_i,:] = [ 3. 12. 136. 148.]
502 cord_individual_obj[indivial_i,:] = [ 4. 13. 219. 232.]
503 cord_individual_obj[indivial_i,:] = [ 5. 9. 145. 154.]
504 cord_individual_obj[indivial_i,:] = [ 6. 10. 147. 157.]
505 cord_individual_obj[indivial_i,:] = [ 7. 10. 164. 174.]
506 cord_individual_obj[indivial_i,:] = [ 8. 13. 150. 163.]
507 cord_individual_obj[indivial_i,:] = [ 9. 10. 100. 110.]
508 cord_individual_obj[indivial_i,:] = [ 10. 12. 119. 131.]
509 cord_individual_obj[indivial_i,:] = [ 11. 10. 189. 199.]
510 cord_individual_obj[indivial_i,:] = [ 12. 9. 137. 146.]
511 cord_individual_obj[indivial_i,:] = [ 13. 11. 160. 171.]
512 cord_individual_obj[indivial_i,:] = [ 14. 10. 196. 206.]
513 cord_individual_obj[indivial_i,:] = [ 15. 10. 137. 147.]
514 cord_individual_obj[indivial_i,:] = [ 16. 10. 73. 83.]
515 cord_individual_obj[indivial_i,:] = [ 17. 10. 145. 155.]
516 cord_individual_obj[indivial_i,:] = [ 18. 12. 105. 117.]
517 cord_individual_obj[indivial_i,:] = [ 19. 12. 131. 143.]
518 cord_individual_obj[indivial_i,:] = [ 20. 10. 119. 129.]
519 cord_individual_obj[indivial_i,:] = [ 21. 11. 149. 160.]
520 cord_individual_obj[indivial_i,:] = [ 22. 10. 154. 164.]
521 cord_individual_obj[indivial_i,:] = [ 23. 12. 142. 154.]
522 cord_individual_obj[indivial_i,:] = [ 24. 11. 155. 166.]
523
524 min(cord_individual_obj[:, 3]) = 83.0
525 histol_G_best_iter[iter, 3] = 83.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 11. 129. 140.]
530 cord_individual_obj[indivial_i,:] = [ 1. 9. 195. 204.]
531 cord_individual_obj[indivial_i,:] = [ 2. 10. 235. 245.]
532 cord_individual_obj[indivial_i,:] = [ 3. 12. 201. 213.]
533 cord_individual_obj[indivial_i,:] = [ 4. 10. 73. 83.]
534 cord_individual_obj[indivial_i,:] = [ 5. 10. 188. 198.]
535 cord_individual_obj[indivial_i,:] = [ 6. 12. 154. 166.]
536 cord_individual_obj[indivial_i,:] = [ 7. 11. 126. 137.]
537 cord_individual_obj[indivial_i,:] = [ 8. 10. 136. 146.]
538 cord_individual_obj[indivial_i,:] = [ 9. 10. 188. 198.]
539 cord_individual_obj[indivial_i,:] = [ 10. 12. 78. 90.]
540 cord_individual_obj[indivial_i,:] = [ 11. 10. 218. 228.]
541 cord_individual_obj[indivial_i,:] = [ 12. 10. 110. 120.]
542 cord_individual_obj[indivial_i,:] = [ 13. 10. 152. 162.]
543 cord_individual_obj[indivial_i,:] = [ 14. 11. 171. 182.]
544 cord_individual_obj[indivial_i,:] = [ 15. 10. 259. 269.]
545 cord_individual_obj[indivial_i,:] = [ 16. 10. 175. 185.]
546 cord_individual_obj[indivial_i,:] = [ 17. 11. 183. 194.]
547 cord_individual_obj[indivial_i,:] = [ 18. 14. 160. 174.]
548 cord_individual_obj[indivial_i,:] = [ 19. 11. 113. 124.]
549 cord_individual_obj[indivial_i,:] = [ 20. 10. 180. 190.]
550 cord_individual_obj[indivial_i,:] = [ 21. 12. 128. 140.]
551 cord_individual_obj[indivial_i,:] = [ 22. 12. 168. 180.]
552 cord_individual_obj[indivial_i,:] = [ 23. 12. 151. 163.]
553 cord_individual_obj[indivial_i,:] = [ 24. 9. 222. 231.]
554
555 min(cord_individual_obj[:, 3]) = 83.0
556 histol_G_best_iter[iter, 3] = 83.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 11. 178. 189.]
561 cord_individual_obj[indivial_i,:] = [ 1. 11. 228. 239.]
562 cord_individual_obj[indivial_i,:] = [ 2. 11. 192. 203.]
563 cord_individual_obj[indivial_i,:] = [ 3. 10. 119. 129.]
564 cord_individual_obj[indivial_i,:] = [ 4. 12. 201. 213.]
565 cord_individual_obj[indivial_i,:] = [ 5. 9. 149. 158.]
566 cord_individual_obj[indivial_i,:] = [ 6. 11. 180. 191.]
567 cord_individual_obj[indivial_i,:] = [ 7. 10. 194. 204.]
568 cord_individual_obj[indivial_i,:] = [ 8. 9. 205. 214.]
569 cord_individual_obj[indivial_i,:] = [ 9. 10. 102. 112.]
570 cord_individual_obj[indivial_i,:] = [ 10. 10. 142. 152.]
571 cord_individual_obj[indivial_i,:] = [ 11. 11. 120. 131.]
572 cord_individual_obj[indivial_i,:] = [ 12. 8. 158. 166.]
573 cord_individual_obj[indivial_i,:] = [ 13. 10. 161. 171.]
574 cord_individual_obj[indivial_i,:] = [ 14. 11. 123. 134.]
575 cord_individual_obj[indivial_i,:] = [ 15. 10. 73. 83.]
576 cord_individual_obj[indivial_i,:] = [ 16. 9. 132. 141.]
577 cord_individual_obj[indivial_i,:] = [ 17. 12. 181. 193.]
578 cord_individual_obj[indivial_i,:] = [ 18. 10. 118. 128.]
579 cord_individual_obj[indivial_i,:] = [ 19. 13. 126. 139.]
580 cord_individual_obj[indivial_i,:] = [ 20. 10. 136. 146.]
581 cord_individual_obj[indivial_i,:] = [ 21. 12. 144. 156.]
582 cord_individual_obj[indivial_i,:] = [ 22. 10. 178. 188.]
583 cord_individual_obj[indivial_i,:] = [ 23. 12. 135. 147.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 11. 128. 139.]
585
586     min(cord_individual_obj[:, 3]) = 83.0
587     historl_G_best_iter[iter, 3] = 83.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 12. 200. 212.]
592     cord_individual_obj[indivial_i, :] = [ 1. 10. 73. 83.]
593     cord_individual_obj[indivial_i, :] = [ 2. 11. 249. 260.]
594     cord_individual_obj[indivial_i, :] = [ 3. 14. 149. 163.]
595     cord_individual_obj[indivial_i, :] = [ 4. 13. 210. 223.]
596     cord_individual_obj[indivial_i, :] = [ 5. 9. 156. 165.]
597     cord_individual_obj[indivial_i, :] = [ 6. 11. 154. 165.]
598     cord_individual_obj[indivial_i, :] = [ 7. 9. 150. 159.]
599     cord_individual_obj[indivial_i, :] = [ 8. 11. 162. 173.]
600     cord_individual_obj[indivial_i, :] = [ 9. 12. 182. 194.]
601     cord_individual_obj[indivial_i, :] = [ 10. 9. 170. 179.]
602     cord_individual_obj[indivial_i, :] = [ 11. 9. 156. 165.]
603     cord_individual_obj[indivial_i, :] = [ 12. 10. 143. 153.]
604     cord_individual_obj[indivial_i, :] = [ 13. 10. 150. 160.]
605     cord_individual_obj[indivial_i, :] = [ 14. 10. 205. 215.]
606     cord_individual_obj[indivial_i, :] = [ 15. 10. 179. 189.]
607     cord_individual_obj[indivial_i, :] = [ 16. 10. 136. 146.]
608     cord_individual_obj[indivial_i, :] = [ 17. 10. 129. 139.]
609     cord_individual_obj[indivial_i, :] = [ 18. 12. 173. 185.]
610     cord_individual_obj[indivial_i, :] = [ 19. 11. 135. 146.]
611     cord_individual_obj[indivial_i, :] = [ 20. 11. 161. 172.]
612     cord_individual_obj[indivial_i, :] = [ 21. 12. 161. 173.]
613     cord_individual_obj[indivial_i, :] = [ 22. 9. 141. 150.]
614     cord_individual_obj[indivial_i, :] = [ 23. 12. 201. 213.]
615     cord_individual_obj[indivial_i, :] = [ 24. 10. 122. 132.]
616
617     min(cord_individual_obj[:, 3]) = 83.0
618     historl_G_best_iter[iter, 3] = 83.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 11. 163. 174.]
623     cord_individual_obj[indivial_i, :] = [ 1. 9. 122. 131.]
624     cord_individual_obj[indivial_i, :] = [ 2. 10. 73. 83.]
625     cord_individual_obj[indivial_i, :] = [ 3. 10. 143. 153.]
626     cord_individual_obj[indivial_i, :] = [ 4. 11. 104. 115.]
627     cord_individual_obj[indivial_i, :] = [ 5. 12. 127. 139.]
628     cord_individual_obj[indivial_i, :] = [ 6. 10. 114. 124.]
629     cord_individual_obj[indivial_i, :] = [ 7. 9. 124. 133.]
630     cord_individual_obj[indivial_i, :] = [ 8. 11. 217. 228.]
631     cord_individual_obj[indivial_i, :] = [ 9. 10. 144. 154.]
632     cord_individual_obj[indivial_i, :] = [ 10. 11. 211. 222.]
633     cord_individual_obj[indivial_i, :] = [ 11. 9. 147. 156.]
634     cord_individual_obj[indivial_i, :] = [ 12. 10. 169. 179.]
635     cord_individual_obj[indivial_i, :] = [ 13. 9. 232. 241.]
636     cord_individual_obj[indivial_i, :] = [ 14. 10. 146. 156.]
637     cord_individual_obj[indivial_i, :] = [ 15. 10. 177. 187.]
638     cord_individual_obj[indivial_i, :] = [ 16. 9. 139. 148.]
639     cord_individual_obj[indivial_i, :] = [ 17. 12. 176. 188.]
640     cord_individual_obj[indivial_i, :] = [ 18. 11. 171. 182.]
641     cord_individual_obj[indivial_i, :] = [ 19. 11. 95. 106.]
642     cord_individual_obj[indivial_i, :] = [ 20. 10. 159. 169.]
643     cord_individual_obj[indivial_i, :] = [ 21. 11. 101. 112.]
644     cord_individual_obj[indivial_i, :] = [ 22. 9. 230. 239.]
645     cord_individual_obj[indivial_i, :] = [ 23. 12. 143. 155.]
646     cord_individual_obj[indivial_i, :] = [ 24. 10. 148. 158.]
647
648     min(cord_individual_obj[:, 3]) = 83.0
649     historl_G_best_iter[iter, 3] = 83.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 12. 160. 172.]
654     cord_individual_obj[indivial_i, :] = [ 1. 9. 138. 147.]
655     cord_individual_obj[indivial_i, :] = [ 2. 11. 205. 216.]
656     cord_individual_obj[indivial_i, :] = [ 3. 14. 150. 164.]
657     cord_individual_obj[indivial_i, :] = [ 4. 11. 153. 164.]
658     cord_individual_obj[indivial_i, :] = [ 5. 9. 101. 110.]
659     cord_individual_obj[indivial_i, :] = [ 6. 12. 126. 138.]
660     cord_individual_obj[indivial_i, :] = [ 7. 10. 126. 136.]
661     cord_individual_obj[indivial_i, :] = [ 8. 11. 160. 171.]
662     cord_individual_obj[indivial_i, :] = [ 9. 12. 170. 182.]
663     cord_individual_obj[indivial_i, :] = [ 10. 9. 197. 206.]
664     cord_individual_obj[indivial_i, :] = [ 11. 9. 148. 157.]
665     cord_individual_obj[indivial_i, :] = [ 12. 9. 181. 190.]
666     cord_individual_obj[indivial_i, :] = [ 13. 10. 73. 83.]
667     cord_individual_obj[indivial_i, :] = [ 14. 11. 199. 210.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 10. 198. 208.]
669 cord_individual_obj[indivial_i,:] = [ 16. 9. 165. 174.]
670 cord_individual_obj[indivial_i,:] = [ 17. 11. 164. 175.]
671 cord_individual_obj[indivial_i,:] = [ 18. 11. 165. 176.]
672 cord_individual_obj[indivial_i,:] = [ 19. 11. 169. 180.]
673 cord_individual_obj[indivial_i,:] = [ 20. 10. 147. 157.]
674 cord_individual_obj[indivial_i,:] = [ 21. 11. 123. 134.]
675 cord_individual_obj[indivial_i,:] = [ 22. 9. 140. 149.]
676 cord_individual_obj[indivial_i,:] = [ 23. 12. 238. 250.]
677 cord_individual_obj[indivial_i,:] = [ 24. 10. 97. 107.]
678
679 min(cord_individual_obj[:, 3]) = 83.0
680 historl_G_best_iter[iter, 3] = 83.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 251.0
689 Proportion_of_area = 0.2324074074074074
690 BEST_CHROM =
691 berth: [15.5 22. 3. 16. 25.5 3. 2. 11. 2.5 21.5 19.5 23. 11.5 4.
692 6.5 24. 8. 15. 17.5]
693 time: [5. 7. 4. 0. 2. 9. 6. 0. 2. 8. 0. 0. 2. 0. 2. 4. 6. 7. 3.]
694 num_QC: [4. 5. 5. 3. 2. 2. 3. 5. 5. 3. 2. 3. 3. 3. 3. 2. 3. 5. 5.]
695 Objective function values and some other indicators:
696 Obj0 = 10.00      Obj1 = 73.00      Obj0 + Obj1 = 83.00
697 Total movement of crane: 6.00
698 Total waiting time in berth position: 67.00
699 Total index of q during berthing: 1294.00
700 Specific arrangement for each vessel:
701 V_id: 0          li: 7.0           xi: 15.5           bow of i: 12.0           tail of i: 19.0           gama_i0: 5.0           gama_i1: 6
702 .0              gama_i1 + 1: 7.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0         work
703 load_i: 160.0   work load gap_i: 0
704 V_id: 1          li: 6.0           xi: 22.0           bow of i: 19.0           tail of i: 25.0           gama_i0: 7.0           gama_i1: 7
705 .0              gama_i1 + 1: 8.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0         work
706 load_i: 80.0   work load gap_i: 0
707 V_id: 2          li: 6.0           xi: 3.0            bow of i: 0.0            tail of i: 6.0            gama_i0: 4.0           gama_i1: 5.0
708 .0              gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0         work load_i:
709 160.0           work load gap_i: 0
710 V_id: 3          li: 4.0           xi: 16.0           bow of i: 14.0           tail of i: 18.0           gama_i0: 0.0           gama_i1: 1
711 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0         work
712 load_i: 120.0   work load gap_i: 0
713 V_id: 4          li: 9.0           xi: 25.5           bow of i: 21.0           tail of i: 30.0           gama_i0: 2.0           gama_i1: 3
714 .0              gama_i1 + 1: 4.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0         work
715 load_i: 80.0   work load gap_i: 0
716 V_id: 5          li: 6.0           xi: 3.0            bow of i: 0.0            tail of i: 6.0            gama_i0: 9.0           gama_i1: 10.0
717 .0              gama_i1 + 1: 11.0      gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0         work
718 load_i: 80.0   work load gap_i: 0
719 V_id: 6          li: 4.0           xi: 2.0            bow of i: 0.0            tail of i: 4.0            gama_i0: 6.0           gama_i1: 8.0
720 .0              gama_i1 + 1: 9.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0        work load_i:
721 140.0           work load gap_i: 0
722 V_id: 7          li: 6.0           xi: 11.0           bow of i: 8.0            tail of i: 14.0           gama_i0: 0.0           gama_i1: 1
723 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0         work
724 load_i: 160.0   work load gap_i: 0
725 V_id: 8          li: 5.0           xi: 2.5            bow of i: 0.0            tail of i: 5.0            gama_i0: 2.0           gama_i1: 3.0
726 .0              gama_i1 + 1: 4.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0         work load_i:
727 160.0           work load gap_i: 0
728 V_id: 9          li: 7.0           xi: 21.5           bow of i: 18.0           tail of i: 25.0           gama_i0: 8.0           gama_i1: 8
729 .0              gama_i1 + 1: 11.0      gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0         work
730 load_i: 160.0   work load gap_i: 0
731 V_id: 10         li: 3.0           xi: 19.5           bow of i: 18.0           tail of i: 21.0           gama_i0: 0.0           gama_i1: 1
732 .0              gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0         work
733 load_i: 120.0   work load gap_i: 0
734 V_id: 11         li: 4.0           xi: 23.0           bow of i: 21.0           tail of i: 25.0           gama_i0: 0.0           gama_i1: 1
735 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0         work
736 load_i: 100.0   work load gap_i: 0
737 V_id: 12         li: 7.0           xi: 11.5           bow of i: 8.0            tail of i: 15.0           gama_i0: 2.0           gama_i1: 2
738 .0              gama_i1 + 1: 5.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0         work
739 load_i: 160.0   work load gap_i: 0
740 V_id: 13         li: 8.0           xi: 4.0            bow of i: 0.0            tail of i: 8.0            gama_i0: 0.0           gama_i1: 1
741 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0         work load_i:
742 120.0           work load gap_i: 0
743 V_id: 14         li: 3.0           xi: 6.5            bow of i: 5.0            tail of i: 8.0            gama_i0: 2.0           gama_i1: 3
744 .0              gama_i1 + 1: 4.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0         work load_i:
745 load_i: 120.0   work load gap_i: 0
746 V_id: 15         li: 8.0           xi: 24.0           bow of i: 20.0           tail of i: 28.0           gama_i0: 4.0           gama_i1: 1
747 .0              gama_i1 + 1: 7.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 100.0         work
748 load_i: 100.0   work load gap_i: 0
749 V_id: 16         li: 8.0           xi: 8.0            bow of i: 4.0            tail of i: 12.0           gama_i0: 6.0           gama_i1: 7
750 .0              gama_i1 + 1: 8.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0          work
751 load_i: 80.0   work load gap_i: 0

```

unknown

718	V_id: 17 : 8.0 load_i: 120.0	li: 6.0 gama_i1 + 1: 9.0 work load gap_i: 0	xi: 15.0 gama_i1 - gama_i0: 1.0	bow of i: 12.0 gama_i1 - gama_i0: 1.0	tail of i: 18.0 duration_time_i: 2.0	gama_i0: 7.0 demand_i: 120.0	gama_i1 work
719	V_id: 18 : 4.0 load_i: 160.0	li: 5.0 gama_i1 + 1: 5.0 work load gap_i: 0	xi: 17.5 gama_i1 - gama_i0: 1.0	bow of i: 15.0 gama_i1 - gama_i0: 1.0	tail of i: 20.0 duration_time_i: 2.0	gama_i0: 3.0 demand_i: 160.0	gama_i1 work
720	Algorithm finished and the total CPU time: 520 s						
721	End						
722							
723							