

unknown

unknown

```
80 historl_G_best_iter[iter, 3] = 14.0
81 Begin iteration:
82
83 iter = 2
84     cord_individual_obj[indivial_i, :] = [ 0.  6.  8. 14.]
85     cord_individual_obj[indivial_i, :] = [ 1.  5. 32. 37.]
86     cord_individual_obj[indivial_i, :] = [ 2.  4. 66. 70.]
87     cord_individual_obj[indivial_i, :] = [ 3.  6.  8. 14.]
88     cord_individual_obj[indivial_i, :] = [ 4.  4. 18. 22.]
89     cord_individual_obj[indivial_i, :] = [ 5.  5. 36. 41.]
90     cord_individual_obj[indivial_i, :] = [ 6.  6.  8. 14.]
91     cord_individual_obj[indivial_i, :] = [ 7.  4. 18. 22.]
92     cord_individual_obj[indivial_i, :] = [ 8.  6. 44. 50.]
93     cord_individual_obj[indivial_i, :] = [ 9.  5. 108. 113.]
94     cord_individual_obj[indivial_i, :] = [10. 4. 26. 30.]
95     cord_individual_obj[indivial_i, :] = [11. 6.  8. 14.]
96     cord_individual_obj[indivial_i, :] = [12. 6. 50. 56.]
97     cord_individual_obj[indivial_i, :] = [13. 6. 52. 58.]
98     cord_individual_obj[indivial_i, :] = [14. 4. 18. 22.]
99     cord_individual_obj[indivial_i, :] = [15. 6.  8. 14.]
100    cord_individual_obj[indivial_i, :] = [16. 5. 38. 43.]
101    cord_individual_obj[indivial_i, :] = [17. 4. 118. 122.]
102    cord_individual_obj[indivial_i, :] = [18. 6.  8. 14.]
103    cord_individual_obj[indivial_i, :] = [19. 4. 38. 42.]
104
105 min(cord_individual_obj[:, 3]) = 14.0
106 historl_G_best_iter[iter, 3] = 14.0
107 Begin iteration:
108
109 iter = 3
110    cord_individual_obj[indivial_i, :] = [ 0.  5. 32. 37.]
111    cord_individual_obj[indivial_i, :] = [ 1.  6. 28. 34.]
112    cord_individual_obj[indivial_i, :] = [ 2.  5. 30. 35.]
113    cord_individual_obj[indivial_i, :] = [ 3.  5. 96. 101.]
114    cord_individual_obj[indivial_i, :] = [ 4.  6. 16. 22.]
115    cord_individual_obj[indivial_i, :] = [ 5.  4. 76. 80.]
116    cord_individual_obj[indivial_i, :] = [ 6.  4. 52. 56.]
117    cord_individual_obj[indivial_i, :] = [ 7.  6.  8. 14.]
118    cord_individual_obj[indivial_i, :] = [ 8.  5. 48. 53.]
119    cord_individual_obj[indivial_i, :] = [ 9.  4. 72. 76.]
120    cord_individual_obj[indivial_i, :] = [10. 4. 62. 66.]
121    cord_individual_obj[indivial_i, :] = [11. 5. 18. 23.]
122    cord_individual_obj[indivial_i, :] = [12. 5. 32. 37.]
123    cord_individual_obj[indivial_i, :] = [13. 6. 20. 26.]
124    cord_individual_obj[indivial_i, :] = [14. 5. 34. 39.]
125    cord_individual_obj[indivial_i, :] = [15. 6. 16. 22.]
126    cord_individual_obj[indivial_i, :] = [16. 6. 14. 20.]
127    cord_individual_obj[indivial_i, :] = [17. 6.  8. 14.]
128    cord_individual_obj[indivial_i, :] = [18. 6.  8. 14.]
129    cord_individual_obj[indivial_i, :] = [19. 3. 104. 107.]
130
131 min(cord_individual_obj[:, 3]) = 14.0
132 historl_G_best_iter[iter, 3] = 14.0
133 Begin iteration:
134
135 iter = 4
136     cord_individual_obj[indivial_i, :] = [ 0.  5. 26. 31.]
137     cord_individual_obj[indivial_i, :] = [ 1.  5. 68. 73.]
138     cord_individual_obj[indivial_i, :] = [ 2.  5. 30. 35.]
139     cord_individual_obj[indivial_i, :] = [ 3.  6.  8. 14.]
140     cord_individual_obj[indivial_i, :] = [ 4.  6. 20. 26.]
141     cord_individual_obj[indivial_i, :] = [ 5.  5. 60. 65.]
142     cord_individual_obj[indivial_i, :] = [ 6.  4. 32. 36.]
143     cord_individual_obj[indivial_i, :] = [ 7.  6. 24. 30.]
144     cord_individual_obj[indivial_i, :] = [ 8.  6. 28. 34.]
145     cord_individual_obj[indivial_i, :] = [ 9.  5. 60. 65.]
146     cord_individual_obj[indivial_i, :] = [10. 6. 24. 30.]
147     cord_individual_obj[indivial_i, :] = [11. 6. 48. 54.]
148     cord_individual_obj[indivial_i, :] = [12. 6. 44. 50.]
149     cord_individual_obj[indivial_i, :] = [13. 5. 58. 63.]
150     cord_individual_obj[indivial_i, :] = [14. 5.  8. 13.]
151     cord_individual_obj[indivial_i, :] = [15. 5. 32. 37.]
152     cord_individual_obj[indivial_i, :] = [16. 6. 24. 30.]
153     cord_individual_obj[indivial_i, :] = [17. 5. 62. 67.]
154     cord_individual_obj[indivial_i, :] = [18. 6.  8. 14.]
155     cord_individual_obj[indivial_i, :] = [19. 6.  8. 14.]
156
157 min(cord_individual_obj[:, 3]) = 13.0
158 historl_G_best_iter[iter, 3] = 13.0
159 Begin iteration:
160
161 iter = 5
162     cord_individual_obj[indivial_i, :] = [ 0.  4.  8. 12.]
163     cord_individual_obj[indivial_i, :] = [ 1.  5.  8. 13.]
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164 cord_individual_obj[indivial_i,:] = [ 2. 4. 48. 52.]
165 cord_individual_obj[indivial_i,:] = [ 3. 6. 42. 48.]
166 cord_individual_obj[indivial_i,:] = [ 4. 6. 8. 14.]
167 cord_individual_obj[indivial_i,:] = [ 5. 4. 48. 52.]
168 cord_individual_obj[indivial_i,:] = [ 6. 6. 32. 38.]
169 cord_individual_obj[indivial_i,:] = [ 7. 6. 8. 14.]
170 cord_individual_obj[indivial_i,:] = [ 8. 6. 12. 18.]
171 cord_individual_obj[indivial_i,:] = [ 9. 4. 12. 16.]
172 cord_individual_obj[indivial_i,:] = [10. 4. 36. 40.]
173 cord_individual_obj[indivial_i,:] = [11. 5. 40. 45.]
174 cord_individual_obj[indivial_i,:] = [12. 6. 12. 18.]
175 cord_individual_obj[indivial_i,:] = [13. 6. 12. 18.]
176 cord_individual_obj[indivial_i,:] = [14. 5. 18. 23.]
177 cord_individual_obj[indivial_i,:] = [15. 4. 16. 20.]
178 cord_individual_obj[indivial_i,:] = [16. 6. 8. 14.]
179 cord_individual_obj[indivial_i,:] = [17. 4. 38. 42.]
180 cord_individual_obj[indivial_i,:] = [18. 6. 18. 24.]
181 cord_individual_obj[indivial_i,:] = [19. 6. 24. 30.]
182
183 min(cord_individual_obj[:,3]) = 12.0
184 historl_G_best_iter[iter, 3] = 12.0
185 Begin iteration:
186
187 iter = 6
188 cord_individual_obj[indivial_i,:] = [ 0. 5. 18. 23.]
189 cord_individual_obj[indivial_i,:] = [ 1. 5. 44. 49.]
190 cord_individual_obj[indivial_i,:] = [ 2. 4. 8. 12.]
191 cord_individual_obj[indivial_i,:] = [ 3. 6. 18. 24.]
192 cord_individual_obj[indivial_i,:] = [ 4. 4. 8. 12.]
193 cord_individual_obj[indivial_i,:] = [ 5. 5. 20. 25.]
194 cord_individual_obj[indivial_i,:] = [ 6. 6. 44. 50.]
195 cord_individual_obj[indivial_i,:] = [ 7. 5. 8. 13.]
196 cord_individual_obj[indivial_i,:] = [ 8. 6. 12. 18.]
197 cord_individual_obj[indivial_i,:] = [ 9. 4. 30. 34.]
198 cord_individual_obj[indivial_i,:] = [10. 4. 24. 28.]
199 cord_individual_obj[indivial_i,:] = [11. 6. 66. 72.]
200 cord_individual_obj[indivial_i,:] = [12. 6. 20. 26.]
201 cord_individual_obj[indivial_i,:] = [13. 6. 92. 98.]
202 cord_individual_obj[indivial_i,:] = [14. 5. 44. 49.]
203 cord_individual_obj[indivial_i,:] = [15. 6. 8. 14.]
204 cord_individual_obj[indivial_i,:] = [16. 5. 30. 35.]
205 cord_individual_obj[indivial_i,:] = [17. 6. 22. 28.]
206 cord_individual_obj[indivial_i,:] = [18. 5. 62. 67.]
207 cord_individual_obj[indivial_i,:] = [19. 5. 44. 49.]
208
209 min(cord_individual_obj[:,3]) = 12.0
210 historl_G_best_iter[iter, 3] = 12.0
211 Begin iteration:
212
213 iter = 7
214 cord_individual_obj[indivial_i,:] = [ 0. 6. 32. 38.]
215 cord_individual_obj[indivial_i,:] = [ 1. 3. 18. 21.]
216 cord_individual_obj[indivial_i,:] = [ 2. 4. 30. 34.]
217 cord_individual_obj[indivial_i,:] = [ 3. 4. 8. 12.]
218 cord_individual_obj[indivial_i,:] = [ 4. 4. 12. 16.]
219 cord_individual_obj[indivial_i,:] = [ 5. 6. 16. 22.]
220 cord_individual_obj[indivial_i,:] = [ 6. 5. 36. 41.]
221 cord_individual_obj[indivial_i,:] = [ 7. 4. 18. 22.]
222 cord_individual_obj[indivial_i,:] = [ 8. 4. 18. 22.]
223 cord_individual_obj[indivial_i,:] = [ 9. 5. 8. 13.]
224 cord_individual_obj[indivial_i,:] = [10. 4. 8. 12.]
225 cord_individual_obj[indivial_i,:] = [11. 5. 8. 13.]
226 cord_individual_obj[indivial_i,:] = [12. 4. 8. 12.]
227 cord_individual_obj[indivial_i,:] = [13. 4. 8. 12.]
228 cord_individual_obj[indivial_i,:] = [14. 4. 8. 12.]
229 cord_individual_obj[indivial_i,:] = [15. 3. 8. 11.]
230 cord_individual_obj[indivial_i,:] = [16. 4. 72. 76.]
231 cord_individual_obj[indivial_i,:] = [17. 5. 8. 13.]
232 cord_individual_obj[indivial_i,:] = [18. 4. 8. 12.]
233 cord_individual_obj[indivial_i,:] = [19. 4. 34. 38.]
234
235 min(cord_individual_obj[:,3]) = 11.0
236 historl_G_best_iter[iter, 3] = 11.0
237 Begin iteration:
238
239 iter = 8
240 cord_individual_obj[indivial_i,:] = [ 0. 5. 52. 57.]
241 cord_individual_obj[indivial_i,:] = [ 1. 6. 46. 52.]
242 cord_individual_obj[indivial_i,:] = [ 2. 5. 146. 151.]
243 cord_individual_obj[indivial_i,:] = [ 3. 5. 38. 43.]
244 cord_individual_obj[indivial_i,:] = [ 4. 3. 90. 93.]
245 cord_individual_obj[indivial_i,:] = [ 5. 5. 36. 41.]
246 cord_individual_obj[indivial_i,:] = [ 6. 4. 52. 56.]
247 cord_individual_obj[indivial_i,:] = [ 7. 5. 82. 87.]

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248 cord_individual_obj[indivial_i,:] = [ 8. 4. 74. 78.]
249 cord_individual_obj[indivial_i,:] = [ 9. 4. 100. 104.]
250 cord_individual_obj[indivial_i,:] = [10. 6. 12. 18.]
251 cord_individual_obj[indivial_i,:] = [11. 5. 38. 43.]
252 cord_individual_obj[indivial_i,:] = [12. 3. 68. 71.]
253 cord_individual_obj[indivial_i,:] = [13. 5. 26. 31.]
254 cord_individual_obj[indivial_i,:] = [14. 4. 68. 72.]
255 cord_individual_obj[indivial_i,:] = [15. 5. 18. 23.]
256 cord_individual_obj[indivial_i,:] = [16. 3. 8. 11.]
257 cord_individual_obj[indivial_i,:] = [17. 5. 26. 31.]
258 cord_individual_obj[indivial_i,:] = [18. 4. 124. 128.]
259 cord_individual_obj[indivial_i,:] = [19. 5. 36. 41.]
260
261 min(cord_individual_obj[:,3]) = 11.0
262 historl_G_best_iter[iter,3] = 11.0
263 Begin iteration:
264
265 iter = 9
266 cord_individual_obj[indivial_i,:] = [ 0. 6. 18. 24.]
267 cord_individual_obj[indivial_i,:] = [ 1. 4. 104. 108.]
268 cord_individual_obj[indivial_i,:] = [ 2. 3. 8. 11.]
269 cord_individual_obj[indivial_i,:] = [ 3. 6. 8. 14.]
270 cord_individual_obj[indivial_i,:] = [ 4. 4. 18. 22.]
271 cord_individual_obj[indivial_i,:] = [ 5. 4. 12. 16.]
272 cord_individual_obj[indivial_i,:] = [ 6. 4. 74. 78.]
273 cord_individual_obj[indivial_i,:] = [ 7. 4. 36. 40.]
274 cord_individual_obj[indivial_i,:] = [ 8. 4. 26. 30.]
275 cord_individual_obj[indivial_i,:] = [ 9. 5. 38. 43.]
276 cord_individual_obj[indivial_i,:] = [10. 4. 36. 40.]
277 cord_individual_obj[indivial_i,:] = [11. 5. 92. 97.]
278 cord_individual_obj[indivial_i,:] = [12. 4. 54. 58.]
279 cord_individual_obj[indivial_i,:] = [13. 6. 12. 18.]
280 cord_individual_obj[indivial_i,:] = [14. 4. 88. 92.]
281 cord_individual_obj[indivial_i,:] = [15. 5. 32. 37.]
282 cord_individual_obj[indivial_i,:] = [16. 5. 82. 87.]
283 cord_individual_obj[indivial_i,:] = [17. 5. 8. 13.]
284 cord_individual_obj[indivial_i,:] = [18. 4. 42. 46.]
285 cord_individual_obj[indivial_i,:] = [19. 4. 26. 30.]
286
287 min(cord_individual_obj[:,3]) = 11.0
288 historl_G_best_iter[iter,3] = 11.0
289 Begin iteration:
290
291 iter = 10
292 cord_individual_obj[indivial_i,:] = [ 0. 4. 44. 48.]
293 cord_individual_obj[indivial_i,:] = [ 1. 3. 8. 11.]
294 cord_individual_obj[indivial_i,:] = [ 2. 5. 44. 49.]
295 cord_individual_obj[indivial_i,:] = [ 3. 3. 58. 61.]
296 cord_individual_obj[indivial_i,:] = [ 4. 3. 84. 87.]
297 cord_individual_obj[indivial_i,:] = [ 5. 5. 82. 87.]
298 cord_individual_obj[indivial_i,:] = [ 6. 5. 26. 31.]
299 cord_individual_obj[indivial_i,:] = [ 7. 4. 68. 72.]
300 cord_individual_obj[indivial_i,:] = [ 8. 5. 60. 65.]
301 cord_individual_obj[indivial_i,:] = [ 9. 4. 70. 74.]
302 cord_individual_obj[indivial_i,:] = [10. 4. 26. 30.]
303 cord_individual_obj[indivial_i,:] = [11. 5. 54. 59.]
304 cord_individual_obj[indivial_i,:] = [12. 3. 56. 59.]
305 cord_individual_obj[indivial_i,:] = [13. 5. 44. 49.]
306 cord_individual_obj[indivial_i,:] = [14. 4. 42. 46.]
307 cord_individual_obj[indivial_i,:] = [15. 4. 18. 22.]
308 cord_individual_obj[indivial_i,:] = [16. 4. 64. 68.]
309 cord_individual_obj[indivial_i,:] = [17. 5. 26. 31.]
310 cord_individual_obj[indivial_i,:] = [18. 5. 92. 97.]
311 cord_individual_obj[indivial_i,:] = [19. 5. 26. 31.]
312
313 min(cord_individual_obj[:,3]) = 11.0
314 historl_G_best_iter[iter,3] = 11.0
315 Begin iteration:
316
317 iter = 11
318 cord_individual_obj[indivial_i,:] = [ 0. 6. 18. 24.]
319 cord_individual_obj[indivial_i,:] = [ 1. 6. 38. 44.]
320 cord_individual_obj[indivial_i,:] = [ 2. 5. 42. 47.]
321 cord_individual_obj[indivial_i,:] = [ 3. 5. 60. 65.]
322 cord_individual_obj[indivial_i,:] = [ 4. 4. 8. 12.]
323 cord_individual_obj[indivial_i,:] = [ 5. 4. 66. 70.]
324 cord_individual_obj[indivial_i,:] = [ 6. 4. 8. 12.]
325 cord_individual_obj[indivial_i,:] = [ 7. 6. 12. 18.]
326 cord_individual_obj[indivial_i,:] = [ 8. 5. 18. 23.]
327 cord_individual_obj[indivial_i,:] = [ 9. 4. 44. 48.]
328 cord_individual_obj[indivial_i,:] = [10. 4. 32. 36.]
329 cord_individual_obj[indivial_i,:] = [11. 5. 72. 77.]
330 cord_individual_obj[indivial_i,:] = [12. 4. 8. 12.]
331 cord_individual_obj[indivial_i,:] = [13. 6. 24. 30.]

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332 cord_individual_obj[indivial_i, :] = [14. 4. 88. 92.]
333 cord_individual_obj[indivial_i, :] = [15. 5. 84. 89.]
334 cord_individual_obj[indivial_i, :] = [16. 5. 80. 85.]
335 cord_individual_obj[indivial_i, :] = [17. 5. 18. 23.]
336 cord_individual_obj[indivial_i, :] = [18. 3. 8. 11.]
337 cord_individual_obj[indivial_i, :] = [19. 4. 26. 30.]
338
339 min(cord_individual_obj[:, 3]) = 11.0
340 historl_G_best_iter[iter, 3] = 11.0
341 Begin iteration:
342
343 iter = 12
344 cord_individual_obj[indivial_i, :] = [ 0. 5. 8. 13.]
345 cord_individual_obj[indivial_i, :] = [ 1. 6. 28. 34.]
346 cord_individual_obj[indivial_i, :] = [ 2. 3. 62. 65.]
347 cord_individual_obj[indivial_i, :] = [ 3. 4. 18. 22.]
348 cord_individual_obj[indivial_i, :] = [ 4. 4. 18. 22.]
349 cord_individual_obj[indivial_i, :] = [ 5. 4. 72. 76.]
350 cord_individual_obj[indivial_i, :] = [ 6. 6. 18. 24.]
351 cord_individual_obj[indivial_i, :] = [ 7. 6. 20. 26.]
352 cord_individual_obj[indivial_i, :] = [ 8. 6. 12. 18.]
353 cord_individual_obj[indivial_i, :] = [ 9. 4. 70. 74.]
354 cord_individual_obj[indivial_i, :] = [10. 6. 12. 18.]
355 cord_individual_obj[indivial_i, :] = [11. 6. 32. 38.]
356 cord_individual_obj[indivial_i, :] = [12. 6. 20. 26.]
357 cord_individual_obj[indivial_i, :] = [13. 4. 44. 48.]
358 cord_individual_obj[indivial_i, :] = [14. 3. 8. 11.]
359 cord_individual_obj[indivial_i, :] = [15. 3. 32. 35.]
360 cord_individual_obj[indivial_i, :] = [16. 5. 32. 37.]
361 cord_individual_obj[indivial_i, :] = [17. 6. 34. 40.]
362 cord_individual_obj[indivial_i, :] = [18. 5. 52. 57.]
363 cord_individual_obj[indivial_i, :] = [19. 6. 44. 50.]
364
365 min(cord_individual_obj[:, 3]) = 11.0
366 historl_G_best_iter[iter, 3] = 11.0
367 Begin iteration:
368
369 iter = 13
370 cord_individual_obj[indivial_i, :] = [ 0. 6. 8. 14.]
371 cord_individual_obj[indivial_i, :] = [ 1. 6. 52. 58.]
372 cord_individual_obj[indivial_i, :] = [ 2. 3. 56. 59.]
373 cord_individual_obj[indivial_i, :] = [ 3. 6. 18. 24.]
374 cord_individual_obj[indivial_i, :] = [ 4. 3. 32. 35.]
375 cord_individual_obj[indivial_i, :] = [ 5. 3. 8. 11.]
376 cord_individual_obj[indivial_i, :] = [ 6. 4. 18. 22.]
377 cord_individual_obj[indivial_i, :] = [ 7. 4. 26. 30.]
378 cord_individual_obj[indivial_i, :] = [ 8. 4. 26. 30.]
379 cord_individual_obj[indivial_i, :] = [ 9. 5. 54. 59.]
380 cord_individual_obj[indivial_i, :] = [10. 6. 12. 18.]
381 cord_individual_obj[indivial_i, :] = [11. 5. 68. 73.]
382 cord_individual_obj[indivial_i, :] = [12. 4. 54. 58.]
383 cord_individual_obj[indivial_i, :] = [13. 6. 12. 18.]
384 cord_individual_obj[indivial_i, :] = [14. 4. 42. 46.]
385 cord_individual_obj[indivial_i, :] = [15. 5. 18. 23.]
386 cord_individual_obj[indivial_i, :] = [16. 5. 56. 61.]
387 cord_individual_obj[indivial_i, :] = [17. 5. 18. 23.]
388 cord_individual_obj[indivial_i, :] = [18. 5. 70. 75.]
389 cord_individual_obj[indivial_i, :] = [19. 6. 24. 30.]
390
391 min(cord_individual_obj[:, 3]) = 11.0
392 historl_G_best_iter[iter, 3] = 11.0
393 Begin iteration:
394
395 iter = 14
396 cord_individual_obj[indivial_i, :] = [ 0. 6. 8. 14.]
397 cord_individual_obj[indivial_i, :] = [ 1. 6. 52. 58.]
398 cord_individual_obj[indivial_i, :] = [ 2. 5. 36. 41.]
399 cord_individual_obj[indivial_i, :] = [ 3. 6. 8. 14.]
400 cord_individual_obj[indivial_i, :] = [ 4. 3. 32. 35.]
401 cord_individual_obj[indivial_i, :] = [ 5. 5. 64. 69.]
402 cord_individual_obj[indivial_i, :] = [ 6. 4. 18. 22.]
403 cord_individual_obj[indivial_i, :] = [ 7. 4. 38. 42.]
404 cord_individual_obj[indivial_i, :] = [ 8. 4. 26. 30.]
405 cord_individual_obj[indivial_i, :] = [ 9. 5. 66. 71.]
406 cord_individual_obj[indivial_i, :] = [10. 6. 12. 18.]
407 cord_individual_obj[indivial_i, :] = [11. 5. 48. 53.]
408 cord_individual_obj[indivial_i, :] = [12. 4. 54. 58.]
409 cord_individual_obj[indivial_i, :] = [13. 6. 38. 44.]
410 cord_individual_obj[indivial_i, :] = [14. 4. 42. 46.]
411 cord_individual_obj[indivial_i, :] = [15. 5. 18. 23.]
412 cord_individual_obj[indivial_i, :] = [16. 5. 56. 61.]
413 cord_individual_obj[indivial_i, :] = [17. 5. 18. 23.]
414 cord_individual_obj[indivial_i, :] = [18. 3. 8. 11.]
415 cord_individual_obj[indivial_i, :] = [19. 6. 24. 30.]

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416
417 min(cord_individual_obj[:, 3]) = 11.0
418 historl_G_best_iter[iter, 3] = 11.0
419 Begin iteration:
420
421 iter = 15
422 cord_individual_obj[indivial_i, :] = [ 0.  5. 52. 57.]
423 cord_individual_obj[indivial_i, :] = [ 1.  3. 80. 83.]
424 cord_individual_obj[indivial_i, :] = [ 2.  5. 56. 61.]
425 cord_individual_obj[indivial_i, :] = [ 3.  3. 32. 35.]
426 cord_individual_obj[indivial_i, :] = [ 4.  3. 56. 59.]
427 cord_individual_obj[indivial_i, :] = [ 5.  4. 44. 48.]
428 cord_individual_obj[indivial_i, :] = [ 6.  4. 26. 30.]
429 cord_individual_obj[indivial_i, :] = [ 7.  4. 70. 74.]
430 cord_individual_obj[indivial_i, :] = [ 8.  5. 60. 65.]
431 cord_individual_obj[indivial_i, :] = [ 9.  3. 8. 11.]
432 cord_individual_obj[indivial_i, :] = [10.  3. 80. 83.]
433 cord_individual_obj[indivial_i, :] = [11.  5. 68. 73.]
434 cord_individual_obj[indivial_i, :] = [12.  3. 44. 47.]
435 cord_individual_obj[indivial_i, :] = [13.  5. 80. 85.]
436 cord_individual_obj[indivial_i, :] = [14.  4. 76. 80.]
437 cord_individual_obj[indivial_i, :] = [15.  3. 56. 59.]
438 cord_individual_obj[indivial_i, :] = [16.  4. 44. 48.]
439 cord_individual_obj[indivial_i, :] = [17.  5. 32. 37.]
440 cord_individual_obj[indivial_i, :] = [18.  4. 78. 82.]
441 cord_individual_obj[indivial_i, :] = [19.  4. 52. 56.]
442
443 min(cord_individual_obj[:, 3]) = 11.0
444 historl_G_best_iter[iter, 3] = 11.0
445 Begin iteration:
446
447 iter = 16
448 cord_individual_obj[indivial_i, :] = [ 0.  6. 8. 14.]
449 cord_individual_obj[indivial_i, :] = [ 1.  6. 38. 44.]
450 cord_individual_obj[indivial_i, :] = [ 2.  5. 56. 61.]
451 cord_individual_obj[indivial_i, :] = [ 3.  6. 8. 14.]
452 cord_individual_obj[indivial_i, :] = [ 4.  3. 32. 35.]
453 cord_individual_obj[indivial_i, :] = [ 5.  5. 72. 77.]
454 cord_individual_obj[indivial_i, :] = [ 6.  4. 18. 22.]
455 cord_individual_obj[indivial_i, :] = [ 7.  4. 52. 56.]
456 cord_individual_obj[indivial_i, :] = [ 8.  4. 26. 30.]
457 cord_individual_obj[indivial_i, :] = [ 9.  5. 66. 71.]
458 cord_individual_obj[indivial_i, :] = [10.  6. 12. 18.]
459 cord_individual_obj[indivial_i, :] = [11.  5. 72. 77.]
460 cord_individual_obj[indivial_i, :] = [12.  4. 54. 58.]
461 cord_individual_obj[indivial_i, :] = [13.  3. 8. 11.]
462 cord_individual_obj[indivial_i, :] = [14.  4. 18. 22.]
463 cord_individual_obj[indivial_i, :] = [15.  5. 18. 23.]
464 cord_individual_obj[indivial_i, :] = [16.  5. 32. 37.]
465 cord_individual_obj[indivial_i, :] = [17.  5. 18. 23.]
466 cord_individual_obj[indivial_i, :] = [18.  5. 78. 83.]
467 cord_individual_obj[indivial_i, :] = [19.  6. 24. 30.]
468
469 min(cord_individual_obj[:, 3]) = 11.0
470 historl_G_best_iter[iter, 3] = 11.0
471 Begin iteration:
472
473 iter = 17
474 cord_individual_obj[indivial_i, :] = [ 0.  4. 44. 48.]
475 cord_individual_obj[indivial_i, :] = [ 1.  3. 60. 63.]
476 cord_individual_obj[indivial_i, :] = [ 2.  5. 56. 61.]
477 cord_individual_obj[indivial_i, :] = [ 3.  3. 8. 11.]
478 cord_individual_obj[indivial_i, :] = [ 4.  3. 56. 59.]
479 cord_individual_obj[indivial_i, :] = [ 5.  4. 44. 48.]
480 cord_individual_obj[indivial_i, :] = [ 6.  4. 52. 56.]
481 cord_individual_obj[indivial_i, :] = [ 7.  4. 70. 74.]
482 cord_individual_obj[indivial_i, :] = [ 8.  5. 60. 65.]
483 cord_individual_obj[indivial_i, :] = [ 9.  5. 8. 13.]
484 cord_individual_obj[indivial_i, :] = [10.  3. 60. 63.]
485 cord_individual_obj[indivial_i, :] = [11.  5. 108. 113.]
486 cord_individual_obj[indivial_i, :] = [12.  3. 44. 47.]
487 cord_individual_obj[indivial_i, :] = [13.  6. 12. 18.]
488 cord_individual_obj[indivial_i, :] = [14.  4. 52. 56.]
489 cord_individual_obj[indivial_i, :] = [15.  3. 32. 35.]
490 cord_individual_obj[indivial_i, :] = [16.  4. 44. 48.]
491 cord_individual_obj[indivial_i, :] = [17.  5. 32. 37.]
492 cord_individual_obj[indivial_i, :] = [18.  3. 8. 11.]
493 cord_individual_obj[indivial_i, :] = [19.  4. 52. 56.]
494
495 min(cord_individual_obj[:, 3]) = 11.0
496 historl_G_best_iter[iter, 3] = 11.0
497 Begin iteration:
498
499 iter = 18

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500 cord_individual_obj[indivial_i, :] = [ 0.  6. 52. 58.]
501 cord_individual_obj[indivial_i, :] = [ 1.  6. 38. 44.]
502 cord_individual_obj[indivial_i, :] = [ 2.  3. 18. 21.]
503 cord_individual_obj[indivial_i, :] = [ 3.  6. 24. 30.]
504 cord_individual_obj[indivial_i, :] = [ 4.  3. 94. 97.]
505 cord_individual_obj[indivial_i, :] = [ 5.  5. 68. 73.]
506 cord_individual_obj[indivial_i, :] = [ 6.  4. 18. 22.]
507 cord_individual_obj[indivial_i, :] = [ 7.  3. 44. 47.]
508 cord_individual_obj[indivial_i, :] = [ 8.  5. 12. 17.]
509 cord_individual_obj[indivial_i, :] = [ 9.  5. 12. 17.]
510 cord_individual_obj[indivial_i, :] = [10.  6. 56. 62.]
511 cord_individual_obj[indivial_i, :] = [11.  3.  8. 11.]
512 cord_individual_obj[indivial_i, :] = [12.  4. 20. 24.]
513 cord_individual_obj[indivial_i, :] = [13.  6. 20. 26.]
514 cord_individual_obj[indivial_i, :] = [14.  3. 54. 57.]
515 cord_individual_obj[indivial_i, :] = [15.  5. 18. 23.]
516 cord_individual_obj[indivial_i, :] = [16.  5. 26. 31.]
517 cord_individual_obj[indivial_i, :] = [17.  5. 52. 57.]
518 cord_individual_obj[indivial_i, :] = [18.  5. 70. 75.]
519 cord_individual_obj[indivial_i, :] = [19.  6. 82. 88.]
520
521 min(cord_individual_obj[:, 3]) = 11.0
522 historl_G_best_iter[iter, 3] = 11.0
523 Begin iteration:
524
525 iter = 19
526 cord_individual_obj[indivial_i, :] = [ 0.  4. 18. 22.]
527 cord_individual_obj[indivial_i, :] = [ 1.  5. 68. 73.]
528 cord_individual_obj[indivial_i, :] = [ 2.  5. 84. 89.]
529 cord_individual_obj[indivial_i, :] = [ 3.  6. 42. 48.]
530 cord_individual_obj[indivial_i, :] = [ 4.  3. 8. 11.]
531 cord_individual_obj[indivial_i, :] = [ 5.  5. 28. 33.]
532 cord_individual_obj[indivial_i, :] = [ 6.  4. 62. 66.]
533 cord_individual_obj[indivial_i, :] = [ 7.  4. 36. 40.]
534 cord_individual_obj[indivial_i, :] = [ 8.  5. 18. 23.]
535 cord_individual_obj[indivial_i, :] = [ 9.  5. 68. 73.]
536 cord_individual_obj[indivial_i, :] = [10.  4. 12. 16.]
537 cord_individual_obj[indivial_i, :] = [11.  4. 12. 16.]
538 cord_individual_obj[indivial_i, :] = [12.  4. 44. 48.]
539 cord_individual_obj[indivial_i, :] = [13.  5. 20. 25.]
540 cord_individual_obj[indivial_i, :] = [14.  4. 68. 72.]
541 cord_individual_obj[indivial_i, :] = [15.  4. 8. 12.]
542 cord_individual_obj[indivial_i, :] = [16.  5. 20. 25.]
543 cord_individual_obj[indivial_i, :] = [17.  6. 40. 46.]
544 cord_individual_obj[indivial_i, :] = [18.  5. 8. 13.]
545 cord_individual_obj[indivial_i, :] = [19.  5. 24. 29.]
546
547 min(cord_individual_obj[:, 3]) = 11.0
548 historl_G_best_iter[iter, 3] = 11.0
549 Begin iteration:
550
551 iter = 20
552 cord_individual_obj[indivial_i, :] = [ 0.  5. 20. 25.]
553 cord_individual_obj[indivial_i, :] = [ 1.  6. 70. 76.]
554 cord_individual_obj[indivial_i, :] = [ 2.  3. 8. 11.]
555 cord_individual_obj[indivial_i, :] = [ 3.  6. 80. 86.]
556 cord_individual_obj[indivial_i, :] = [ 4.  3. 8. 11.]
557 cord_individual_obj[indivial_i, :] = [ 5.  5. 60. 65.]
558 cord_individual_obj[indivial_i, :] = [ 6.  6. 8. 14.]
559 cord_individual_obj[indivial_i, :] = [ 7.  3. 20. 23.]
560 cord_individual_obj[indivial_i, :] = [ 8.  6. 12. 18.]
561 cord_individual_obj[indivial_i, :] = [ 9.  4. 48. 52.]
562 cord_individual_obj[indivial_i, :] = [10.  4. 24. 28.]
563 cord_individual_obj[indivial_i, :] = [11.  6. 24. 30.]
564 cord_individual_obj[indivial_i, :] = [12.  6. 20. 26.]
565 cord_individual_obj[indivial_i, :] = [13.  6. 44. 50.]
566 cord_individual_obj[indivial_i, :] = [14.  3. 94. 97.]
567 cord_individual_obj[indivial_i, :] = [15.  6. 8. 14.]
568 cord_individual_obj[indivial_i, :] = [16.  5. 32. 37.]
569 cord_individual_obj[indivial_i, :] = [17.  5. 20. 25.]
570 cord_individual_obj[indivial_i, :] = [18.  4. 38. 42.]
571 cord_individual_obj[indivial_i, :] = [19.  6. 40. 46.]
572
573 min(cord_individual_obj[:, 3]) = 11.0
574 historl_G_best_iter[iter, 3] = 11.0
575 Begin iteration:
576
577 iter = 21
578 cord_individual_obj[indivial_i, :] = [ 0.  6. 58. 64.]
579 cord_individual_obj[indivial_i, :] = [ 1.  5. 18. 23.]
580 cord_individual_obj[indivial_i, :] = [ 2.  3. 40. 43.]
581 cord_individual_obj[indivial_i, :] = [ 3.  3. 18. 21.]
582 cord_individual_obj[indivial_i, :] = [ 4.  3. 12. 15.]
583 cord_individual_obj[indivial_i, :] = [ 5.  4. 8. 12.]

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584 cord_individual_obj[indivial_i,:] = [ 6. 4. 36. 40.]
585 cord_individual_obj[indivial_i,:] = [ 7. 4. 30. 34.]
586 cord_individual_obj[indivial_i,:] = [ 8. 5. 8. 13.]
587 cord_individual_obj[indivial_i,:] = [ 9. 4. 12. 16.]
588 cord_individual_obj[indivial_i,:] = [10. 4. 30. 34.]
589 cord_individual_obj[indivial_i,:] = [11. 5. 18. 23.]
590 cord_individual_obj[indivial_i,:] = [12. 3. 16. 19.]
591 cord_individual_obj[indivial_i,:] = [13. 5. 24. 29.]
592 cord_individual_obj[indivial_i,:] = [14. 3. 8. 11.]
593 cord_individual_obj[indivial_i,:] = [15. 3. 8. 11.]
594 cord_individual_obj[indivial_i,:] = [16. 4. 76. 80.]
595 cord_individual_obj[indivial_i,:] = [17. 5. 70. 75.]
596 cord_individual_obj[indivial_i,:] = [18. 5. 8. 13.]
597 cord_individual_obj[indivial_i,:] = [19. 4. 8. 12.]
598
599 min(cord_individual_obj[:,3]) = 11.0
600 historl_G_best_iter[iter,3] = 11.0
601 Begin iteration:
602
603 iter = 22
604 cord_individual_obj[indivial_i,:] = [ 0. 5. 12. 17.]
605 cord_individual_obj[indivial_i,:] = [ 1. 6. 24. 30.]
606 cord_individual_obj[indivial_i,:] = [ 2. 3. 12. 15.]
607 cord_individual_obj[indivial_i,:] = [ 3. 6. 8. 14.]
608 cord_individual_obj[indivial_i,:] = [ 4. 3. 12. 15.]
609 cord_individual_obj[indivial_i,:] = [ 5. 5. 56. 61.]
610 cord_individual_obj[indivial_i,:] = [ 6. 6. 44. 50.]
611 cord_individual_obj[indivial_i,:] = [ 7. 4. 8. 12.]
612 cord_individual_obj[indivial_i,:] = [ 8. 4. 12. 16.]
613 cord_individual_obj[indivial_i,:] = [ 9. 5. 18. 23.]
614 cord_individual_obj[indivial_i,:] = [10. 4. 16. 20.]
615 cord_individual_obj[indivial_i,:] = [11. 6. 26. 32.]
616 cord_individual_obj[indivial_i,:] = [12. 4. 8. 12.]
617 cord_individual_obj[indivial_i,:] = [13. 6. 94. 100.]
618 cord_individual_obj[indivial_i,:] = [14. 4. 68. 72.]
619 cord_individual_obj[indivial_i,:] = [15. 5. 8. 13.]
620 cord_individual_obj[indivial_i,:] = [16. 3. 8. 11.]
621 cord_individual_obj[indivial_i,:] = [17. 5. 8. 13.]
622 cord_individual_obj[indivial_i,:] = [18. 5. 24. 29.]
623 cord_individual_obj[indivial_i,:] = [19. 6. 90. 96.]
624
625 min(cord_individual_obj[:,3]) = 11.0
626 historl_G_best_iter[iter,3] = 11.0
627 Begin iteration:
628
629 iter = 23
630 cord_individual_obj[indivial_i,:] = [ 0. 3. 8. 11.]
631 cord_individual_obj[indivial_i,:] = [ 1. 5. 62. 67.]
632 cord_individual_obj[indivial_i,:] = [ 2. 5. 48. 53.]
633 cord_individual_obj[indivial_i,:] = [ 3. 4. 54. 58.]
634 cord_individual_obj[indivial_i,:] = [ 4. 3. 48. 51.]
635 cord_individual_obj[indivial_i,:] = [ 5. 4. 66. 70.]
636 cord_individual_obj[indivial_i,:] = [ 6. 5. 74. 79.]
637 cord_individual_obj[indivial_i,:] = [ 7. 3. 8. 11.]
638 cord_individual_obj[indivial_i,:] = [ 8. 6. 8. 14.]
639 cord_individual_obj[indivial_i,:] = [ 9. 6. 48. 54.]
640 cord_individual_obj[indivial_i,:] = [10. 6. 24. 30.]
641 cord_individual_obj[indivial_i,:] = [11. 6. 24. 30.]
642 cord_individual_obj[indivial_i,:] = [12. 6. 52. 58.]
643 cord_individual_obj[indivial_i,:] = [13. 3. 8. 11.]
644 cord_individual_obj[indivial_i,:] = [14. 3. 108. 111.]
645 cord_individual_obj[indivial_i,:] = [15. 6. 8. 14.]
646 cord_individual_obj[indivial_i,:] = [16. 5. 20. 25.]
647 cord_individual_obj[indivial_i,:] = [17. 6. 48. 54.]
648 cord_individual_obj[indivial_i,:] = [18. 5. 32. 37.]
649 cord_individual_obj[indivial_i,:] = [19. 4. 106. 110.]
650
651 min(cord_individual_obj[:,3]) = 11.0
652 historl_G_best_iter[iter,3] = 11.0
653 Begin iteration:
654
655 iter = 24
656 cord_individual_obj[indivial_i,:] = [ 0. 6. 8. 14.]
657 cord_individual_obj[indivial_i,:] = [ 1. 6. 52. 58.]
658 cord_individual_obj[indivial_i,:] = [ 2. 5. 56. 61.]
659 cord_individual_obj[indivial_i,:] = [ 3. 6. 18. 24.]
660 cord_individual_obj[indivial_i,:] = [ 4. 3. 32. 35.]
661 cord_individual_obj[indivial_i,:] = [ 5. 5. 28. 33.]
662 cord_individual_obj[indivial_i,:] = [ 6. 4. 26. 30.]
663 cord_individual_obj[indivial_i,:] = [ 7. 4. 36. 40.]
664 cord_individual_obj[indivial_i,:] = [ 8. 6. 12. 18.]
665 cord_individual_obj[indivial_i,:] = [ 9. 5. 48. 53.]
666 cord_individual_obj[indivial_i,:] = [10. 4. 54. 58.]
667 cord_individual_obj[indivial_i,:] = [11. 6. 54. 60.]

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668 cord_individual_obj[indivial_i,:] = [12. 6. 20. 26.]
669 cord_individual_obj[indivial_i,:] = [13. 6. 12. 18.]
670 cord_individual_obj[indivial_i,:] = [14. 3. 8. 11.]
671 cord_individual_obj[indivial_i,:] = [15. 5. 18. 23.]
672 cord_individual_obj[indivial_i,:] = [16. 5. 56. 61.]
673 cord_individual_obj[indivial_i,:] = [17. 6. 12. 18.]
674 cord_individual_obj[indivial_i,:] = [18. 5. 38. 43.]
675 cord_individual_obj[indivial_i,:] = [19. 6. 24. 30.]
676
677 min(cord_individual_obj[:,3]) = 11.0
678 historl_G_best_iter[iter,3] = 11.0
679 Begin iteration:
680
681 iter = 25
682 cord_individual_obj[indivial_i,:] = [ 0. 4. 44. 48.]
683 cord_individual_obj[indivial_i,:] = [ 1. 3. 36. 39.]
684 cord_individual_obj[indivial_i,:] = [ 2. 3. 8. 11.]
685 cord_individual_obj[indivial_i,:] = [ 3. 3. 54. 57.]
686 cord_individual_obj[indivial_i,:] = [ 4. 3. 60. 63.]
687 cord_individual_obj[indivial_i,:] = [ 5. 4. 38. 42.]
688 cord_individual_obj[indivial_i,:] = [ 6. 4. 86. 90.]
689 cord_individual_obj[indivial_i,:] = [ 7. 4. 20. 24.]
690 cord_individual_obj[indivial_i,:] = [ 8. 5. 114. 119.]
691 cord_individual_obj[indivial_i,:] = [ 9. 4. 68. 72.]
692 cord_individual_obj[indivial_i,:] = [10. 4. 26. 30.]
693 cord_individual_obj[indivial_i,:] = [11. 5. 108. 113.]
694 cord_individual_obj[indivial_i,:] = [12. 3. 28. 31.]
695 cord_individual_obj[indivial_i,:] = [13. 5. 62. 67.]
696 cord_individual_obj[indivial_i,:] = [14. 4. 130. 134.]
697 cord_individual_obj[indivial_i,:] = [15. 3. 60. 63.]
698 cord_individual_obj[indivial_i,:] = [16. 4. 44. 48.]
699 cord_individual_obj[indivial_i,:] = [17. 5. 36. 41.]
700 cord_individual_obj[indivial_i,:] = [18. 3. 48. 51.]
701 cord_individual_obj[indivial_i,:] = [19. 4. 46. 50.]
702
703 min(cord_individual_obj[:,3]) = 11.0
704 historl_G_best_iter[iter,3] = 11.0
705 Begin iteration:
706
707 iter = 26
708 cord_individual_obj[indivial_i,:] = [ 0. 6. 8. 14.]
709 cord_individual_obj[indivial_i,:] = [ 1. 6. 38. 44.]
710 cord_individual_obj[indivial_i,:] = [ 2. 3. 56. 59.]
711 cord_individual_obj[indivial_i,:] = [ 3. 6. 8. 14.]
712 cord_individual_obj[indivial_i,:] = [ 4. 3. 32. 35.]
713 cord_individual_obj[indivial_i,:] = [ 5. 5. 58. 63.]
714 cord_individual_obj[indivial_i,:] = [ 6. 4. 26. 30.]
715 cord_individual_obj[indivial_i,:] = [ 7. 4. 48. 52.]
716 cord_individual_obj[indivial_i,:] = [ 8. 5. 18. 23.]
717 cord_individual_obj[indivial_i,:] = [ 9. 4. 86. 90.]
718 cord_individual_obj[indivial_i,:] = [10. 6. 8. 14.]
719 cord_individual_obj[indivial_i,:] = [11. 4. 46. 50.]
720 cord_individual_obj[indivial_i,:] = [12. 4. 18. 22.]
721 cord_individual_obj[indivial_i,:] = [13. 6. 24. 30.]
722 cord_individual_obj[indivial_i,:] = [14. 3. 8. 11.]
723 cord_individual_obj[indivial_i,:] = [15. 5. 18. 23.]
724 cord_individual_obj[indivial_i,:] = [16. 5. 56. 61.]
725 cord_individual_obj[indivial_i,:] = [17. 5. 18. 23.]
726 cord_individual_obj[indivial_i,:] = [18. 4. 32. 36.]
727 cord_individual_obj[indivial_i,:] = [19. 6. 24. 30.]
728
729 min(cord_individual_obj[:,3]) = 11.0
730 historl_G_best_iter[iter,3] = 11.0
731 Begin iteration:
732
733 iter = 27
734 cord_individual_obj[indivial_i,:] = [ 0. 5. 18. 23.]
735 cord_individual_obj[indivial_i,:] = [ 1. 5. 58. 63.]
736 cord_individual_obj[indivial_i,:] = [ 2. 5. 36. 41.]
737 cord_individual_obj[indivial_i,:] = [ 3. 5. 24. 29.]
738 cord_individual_obj[indivial_i,:] = [ 4. 3. 32. 35.]
739 cord_individual_obj[indivial_i,:] = [ 5. 5. 28. 33.]
740 cord_individual_obj[indivial_i,:] = [ 6. 6. 8. 14.]
741 cord_individual_obj[indivial_i,:] = [ 7. 3. 8. 11.]
742 cord_individual_obj[indivial_i,:] = [ 8. 4. 26. 30.]
743 cord_individual_obj[indivial_i,:] = [ 9. 3. 8. 11.]
744 cord_individual_obj[indivial_i,:] = [10. 4. 54. 58.]
745 cord_individual_obj[indivial_i,:] = [11. 6. 32. 38.]
746 cord_individual_obj[indivial_i,:] = [12. 4. 20. 24.]
747 cord_individual_obj[indivial_i,:] = [13. 6. 56. 62.]
748 cord_individual_obj[indivial_i,:] = [14. 4. 18. 22.]
749 cord_individual_obj[indivial_i,:] = [15. 4. 8. 12.]
750 cord_individual_obj[indivial_i,:] = [16. 5. 48. 53.]
751 cord_individual_obj[indivial_i,:] = [17. 6. 38. 44.]

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unknown

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752     cord_individual_obj[indivial_i, :] = [18. 4. 8. 12.]
753     cord_individual_obj[indivial_i, :] = [19. 5. 64. 69.]
754
755 min(cord_individual_obj[:, 3]) = 11.0
756 historl_G_best_iter[iter, 3] = 11.0
757 Begin iteration:
758
759 iter = 28
760     cord_individual_obj[indivial_i, :] = [ 0. 6. 12. 18.]
761     cord_individual_obj[indivial_i, :] = [ 1. 6. 80. 86.]
762     cord_individual_obj[indivial_i, :] = [ 2. 5. 36. 41.]
763     cord_individual_obj[indivial_i, :] = [ 3. 5. 18. 23.]
764     cord_individual_obj[indivial_i, :] = [ 4. 3. 56. 59.]
765     cord_individual_obj[indivial_i, :] = [ 5. 4. 46. 50.]
766     cord_individual_obj[indivial_i, :] = [ 6. 4. 32. 36.]
767     cord_individual_obj[indivial_i, :] = [ 7. 4. 38. 42.]
768     cord_individual_obj[indivial_i, :] = [ 8. 4. 50. 54.]
769     cord_individual_obj[indivial_i, :] = [ 9. 4. 76. 80.]
770     cord_individual_obj[indivial_i, :] = [10. 6. 20. 26.]
771     cord_individual_obj[indivial_i, :] = [11. 3. 130. 133.]
772     cord_individual_obj[indivial_i, :] = [12. 4. 36. 40.]
773     cord_individual_obj[indivial_i, :] = [13. 5. 32. 37.]
774     cord_individual_obj[indivial_i, :] = [14. 4. 42. 46.]
775     cord_individual_obj[indivial_i, :] = [15. 5. 32. 37.]
776     cord_individual_obj[indivial_i, :] = [16. 4. 32. 36.]
777     cord_individual_obj[indivial_i, :] = [17. 4. 18. 22.]
778     cord_individual_obj[indivial_i, :] = [18. 5. 32. 37.]
779     cord_individual_obj[indivial_i, :] = [19. 3. 8. 11.]
780
781 min(cord_individual_obj[:, 3]) = 11.0
782 historl_G_best_iter[iter, 3] = 11.0
783 Begin iteration:
784
785 iter = 29
786     cord_individual_obj[indivial_i, :] = [ 0. 5. 38. 43.]
787     cord_individual_obj[indivial_i, :] = [ 1. 5. 50. 55.]
788     cord_individual_obj[indivial_i, :] = [ 2. 5. 42. 47.]
789     cord_individual_obj[indivial_i, :] = [ 3. 4. 18. 22.]
790     cord_individual_obj[indivial_i, :] = [ 4. 3. 44. 47.]
791     cord_individual_obj[indivial_i, :] = [ 5. 5. 74. 79.]
792     cord_individual_obj[indivial_i, :] = [ 6. 4. 18. 22.]
793     cord_individual_obj[indivial_i, :] = [ 7. 4. 52. 56.]
794     cord_individual_obj[indivial_i, :] = [ 8. 4. 42. 46.]
795     cord_individual_obj[indivial_i, :] = [ 9. 5. 8. 13.]
796     cord_individual_obj[indivial_i, :] = [10. 4. 44. 48.]
797     cord_individual_obj[indivial_i, :] = [11. 3. 8. 11.]
798     cord_individual_obj[indivial_i, :] = [12. 3. 8. 11.]
799     cord_individual_obj[indivial_i, :] = [13. 5. 50. 55.]
800     cord_individual_obj[indivial_i, :] = [14. 4. 38. 42.]
801     cord_individual_obj[indivial_i, :] = [15. 4. 18. 22.]
802     cord_individual_obj[indivial_i, :] = [16. 5. 72. 77.]
803     cord_individual_obj[indivial_i, :] = [17. 5. 44. 49.]
804     cord_individual_obj[indivial_i, :] = [18. 5. 90. 95.]
805     cord_individual_obj[indivial_i, :] = [19. 6. 24. 30.]
806
807 min(cord_individual_obj[:, 3]) = 11.0
808 historl_G_best_iter[iter, 3] = 11.0
809 Begin iteration:
810
811 iter = 30
812     cord_individual_obj[indivial_i, :] = [ 0. 6. 8. 14.]
813     cord_individual_obj[indivial_i, :] = [ 1. 6. 24. 30.]
814     cord_individual_obj[indivial_i, :] = [ 2. 3. 74. 77.]
815     cord_individual_obj[indivial_i, :] = [ 3. 5. 18. 23.]
816     cord_individual_obj[indivial_i, :] = [ 4. 3. 32. 35.]
817     cord_individual_obj[indivial_i, :] = [ 5. 4. 44. 48.]
818     cord_individual_obj[indivial_i, :] = [ 6. 4. 26. 30.]
819     cord_individual_obj[indivial_i, :] = [ 7. 4. 8. 12.]
820     cord_individual_obj[indivial_i, :] = [ 8. 5. 50. 55.]
821     cord_individual_obj[indivial_i, :] = [ 9. 5. 66. 71.]
822     cord_individual_obj[indivial_i, :] = [10. 6. 8. 14.]
823     cord_individual_obj[indivial_i, :] = [11. 4. 26. 30.]
824     cord_individual_obj[indivial_i, :] = [12. 4. 54. 58.]
825     cord_individual_obj[indivial_i, :] = [13. 6. 24. 30.]
826     cord_individual_obj[indivial_i, :] = [14. 4. 42. 46.]
827     cord_individual_obj[indivial_i, :] = [15. 5. 32. 37.]
828     cord_individual_obj[indivial_i, :] = [16. 4. 56. 60.]
829     cord_individual_obj[indivial_i, :] = [17. 4. 8. 12.]
830     cord_individual_obj[indivial_i, :] = [18. 3. 8. 11.]
831     cord_individual_obj[indivial_i, :] = [19. 5. 32. 37.]
832
833 min(cord_individual_obj[:, 3]) = 11.0
834 historl_G_best_iter[iter, 3] = 11.0
835 Begin iteration:
```

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836
837 iter = 31
838 cord_individual_obj[indivial_i, :] = [ 0.  4. 44. 48.]
839 cord_individual_obj[indivial_i, :] = [ 1.  5. 98. 103.]
840 cord_individual_obj[indivial_i, :] = [ 2.  3. 8. 11.]
841 cord_individual_obj[indivial_i, :] = [ 3.  3. 8. 11.]
842 cord_individual_obj[indivial_i, :] = [ 4.  3. 56. 59.]
843 cord_individual_obj[indivial_i, :] = [ 5.  5. 62. 67.]
844 cord_individual_obj[indivial_i, :] = [ 6.  4. 26. 30.]
845 cord_individual_obj[indivial_i, :] = [ 7.  4. 44. 48.]
846 cord_individual_obj[indivial_i, :] = [ 8.  5. 42. 47.]
847 cord_individual_obj[indivial_i, :] = [ 9.  4. 8. 12.]
848 cord_individual_obj[indivial_i, :] = [10.  4. 70. 74.]
849 cord_individual_obj[indivial_i, :] = [11.  4. 26. 30.]
850 cord_individual_obj[indivial_i, :] = [12.  3. 44. 47.]
851 cord_individual_obj[indivial_i, :] = [13.  5. 8. 13.]
852 cord_individual_obj[indivial_i, :] = [14.  4. 88. 92.]
853 cord_individual_obj[indivial_i, :] = [15.  4. 18. 22.]
854 cord_individual_obj[indivial_i, :] = [16.  5. 80. 85.]
855 cord_individual_obj[indivial_i, :] = [17.  5. 38. 43.]
856 cord_individual_obj[indivial_i, :] = [18.  5. 70. 75.]
857 cord_individual_obj[indivial_i, :] = [19.  4. 66. 70.]
858
859 min(cord_individual_obj[:, 3]) = 11.0
860 historl_G_best_iter[iter, 3] = 11.0
861 Begin iteration:
862
863 iter = 32
864 cord_individual_obj[indivial_i, :] = [ 0.  6. 8. 14.]
865 cord_individual_obj[indivial_i, :] = [ 1.  3. 8. 11.]
866 cord_individual_obj[indivial_i, :] = [ 2.  3. 36. 39.]
867 cord_individual_obj[indivial_i, :] = [ 3.  6. 8. 14.]
868 cord_individual_obj[indivial_i, :] = [ 4.  3. 32. 35.]
869 cord_individual_obj[indivial_i, :] = [ 5.  4. 44. 48.]
870 cord_individual_obj[indivial_i, :] = [ 6.  4. 18. 22.]
871 cord_individual_obj[indivial_i, :] = [ 7.  4. 48. 52.]
872 cord_individual_obj[indivial_i, :] = [ 8.  4. 50. 54.]
873 cord_individual_obj[indivial_i, :] = [ 9.  5. 66. 71.]
874 cord_individual_obj[indivial_i, :] = [10.  6. 8. 14.]
875 cord_individual_obj[indivial_i, :] = [11.  4. 98. 102.]
876 cord_individual_obj[indivial_i, :] = [12.  4. 20. 24.]
877 cord_individual_obj[indivial_i, :] = [13.  6. 12. 18.]
878 cord_individual_obj[indivial_i, :] = [14.  4. 42. 46.]
879 cord_individual_obj[indivial_i, :] = [15.  5. 32. 37.]
880 cord_individual_obj[indivial_i, :] = [16.  4. 36. 40.]
881 cord_individual_obj[indivial_i, :] = [17.  5. 8. 13.]
882 cord_individual_obj[indivial_i, :] = [18.  5. 32. 37.]
883 cord_individual_obj[indivial_i, :] = [19.  5. 32. 37.]
884
885 min(cord_individual_obj[:, 3]) = 11.0
886 historl_G_best_iter[iter, 3] = 11.0
887 Begin iteration:
888
889 iter = 33
890 cord_individual_obj[indivial_i, :] = [ 0.  6. 8. 14.]
891 cord_individual_obj[indivial_i, :] = [ 1.  6. 52. 58.]
892 cord_individual_obj[indivial_i, :] = [ 2.  3. 56. 59.]
893 cord_individual_obj[indivial_i, :] = [ 3.  6. 8. 14.]
894 cord_individual_obj[indivial_i, :] = [ 4.  3. 32. 35.]
895 cord_individual_obj[indivial_i, :] = [ 5.  5. 38. 43.]
896 cord_individual_obj[indivial_i, :] = [ 6.  4. 26. 30.]
897 cord_individual_obj[indivial_i, :] = [ 7.  3. 92. 95.]
898 cord_individual_obj[indivial_i, :] = [ 8.  5. 26. 31.]
899 cord_individual_obj[indivial_i, :] = [ 9.  4. 62. 66.]
900 cord_individual_obj[indivial_i, :] = [10.  6. 12. 18.]
901 cord_individual_obj[indivial_i, :] = [11.  3. 8. 11.]
902 cord_individual_obj[indivial_i, :] = [12.  4. 54. 58.]
903 cord_individual_obj[indivial_i, :] = [13.  6. 28. 34.]
904 cord_individual_obj[indivial_i, :] = [14.  4. 66. 70.]
905 cord_individual_obj[indivial_i, :] = [15.  5. 18. 23.]
906 cord_individual_obj[indivial_i, :] = [16.  5. 38. 43.]
907 cord_individual_obj[indivial_i, :] = [17.  5. 18. 23.]
908 cord_individual_obj[indivial_i, :] = [18.  4. 38. 42.]
909 cord_individual_obj[indivial_i, :] = [19.  6. 24. 30.]
910
911 min(cord_individual_obj[:, 3]) = 11.0
912 historl_G_best_iter[iter, 3] = 11.0
913 Begin iteration:
914
915 iter = 34
916 cord_individual_obj[indivial_i, :] = [ 0.  5. 44. 49.]
917 cord_individual_obj[indivial_i, :] = [ 1.  3. 80. 83.]
918 cord_individual_obj[indivial_i, :] = [ 2.  3. 42. 45.]
919 cord_individual_obj[indivial_i, :] = [ 3.  3. 8. 11.]

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920 cord_individual_obj[individual_i, :] = [ 4. 3. 56. 59.]
921 cord_individual_obj[individual_i, :] = [ 5. 4. 50. 54.]
922 cord_individual_obj[individual_i, :] = [ 6. 4. 44. 48.]
923 cord_individual_obj[individual_i, :] = [ 7. 3. 8. 11.]
924 cord_individual_obj[individual_i, :] = [ 8. 3. 68. 71.]
925 cord_individual_obj[individual_i, :] = [ 9. 5. 32. 37.]
926 cord_individual_obj[individual_i, :] = [10. 3. 60. 63.]
927 cord_individual_obj[individual_i, :] = [11. 5. 46. 51.]
928 cord_individual_obj[individual_i, :] = [12. 3. 44. 47.]
929 cord_individual_obj[individual_i, :] = [13. 5. 52. 57.]
930 cord_individual_obj[individual_i, :] = [14. 4. 52. 56.]
931 cord_individual_obj[individual_i, :] = [15. 3. 56. 59.]
932 cord_individual_obj[individual_i, :] = [16. 4. 38. 42.]
933 cord_individual_obj[individual_i, :] = [17. 5. 32. 37.]
934 cord_individual_obj[individual_i, :] = [18. 5. 32. 37.]
935 cord_individual_obj[individual_i, :] = [19. 4. 44. 48.]
936
937 min(cord_individual_obj[:, 3]) = 11.0
938 historl_G_best_iter[iter, 3] = 11.0
939 Begin iteration:
940
941 iter = 35
942 cord_individual_obj[individual_i, :] = [ 0. 6. 24. 30.]
943 cord_individual_obj[individual_i, :] = [ 1. 3. 8. 11.]
944 cord_individual_obj[individual_i, :] = [ 2. 5. 36. 41.]
945 cord_individual_obj[individual_i, :] = [ 3. 6. 8. 14.]
946 cord_individual_obj[individual_i, :] = [ 4. 3. 40. 43.]
947 cord_individual_obj[individual_i, :] = [ 5. 5. 58. 63.]
948 cord_individual_obj[individual_i, :] = [ 6. 4. 52. 56.]
949 cord_individual_obj[individual_i, :] = [ 7. 4. 20. 24.]
950 cord_individual_obj[individual_i, :] = [ 8. 5. 24. 29.]
951 cord_individual_obj[individual_i, :] = [ 9. 4. 62. 66.]
952 cord_individual_obj[individual_i, :] = [10. 6. 8. 14.]
953 cord_individual_obj[individual_i, :] = [11. 5. 30. 35.]
954 cord_individual_obj[individual_i, :] = [12. 4. 46. 50.]
955 cord_individual_obj[individual_i, :] = [13. 6. 8. 14.]
956 cord_individual_obj[individual_i, :] = [14. 4. 62. 66.]
957 cord_individual_obj[individual_i, :] = [15. 5. 52. 57.]
958 cord_individual_obj[individual_i, :] = [16. 5. 36. 41.]
959 cord_individual_obj[individual_i, :] = [17. 5. 18. 23.]
960 cord_individual_obj[individual_i, :] = [18. 3. 56. 59.]
961 cord_individual_obj[individual_i, :] = [19. 6. 8. 14.]
962
963 min(cord_individual_obj[:, 3]) = 11.0
964 historl_G_best_iter[iter, 3] = 11.0
965 Begin iteration:
966
967 iter = 36
968 cord_individual_obj[individual_i, :] = [ 0. 5. 44. 49.]
969 cord_individual_obj[individual_i, :] = [ 1. 6. 56. 62.]
970 cord_individual_obj[individual_i, :] = [ 2. 5. 26. 31.]
971 cord_individual_obj[individual_i, :] = [ 3. 3. 44. 47.]
972 cord_individual_obj[individual_i, :] = [ 4. 3. 52. 55.]
973 cord_individual_obj[individual_i, :] = [ 5. 4. 44. 48.]
974 cord_individual_obj[individual_i, :] = [ 6. 4. 40. 44.]
975 cord_individual_obj[individual_i, :] = [ 7. 4. 44. 48.]
976 cord_individual_obj[individual_i, :] = [ 8. 5. 60. 65.]
977 cord_individual_obj[individual_i, :] = [ 9. 3. 8. 11.]
978 cord_individual_obj[individual_i, :] = [10. 3. 42. 45.]
979 cord_individual_obj[individual_i, :] = [11. 5. 82. 87.]
980 cord_individual_obj[individual_i, :] = [12. 3. 32. 35.]
981 cord_individual_obj[individual_i, :] = [13. 4. 44. 48.]
982 cord_individual_obj[individual_i, :] = [14. 4. 44. 48.]
983 cord_individual_obj[individual_i, :] = [15. 3. 44. 47.]
984 cord_individual_obj[individual_i, :] = [16. 4. 72. 76.]
985 cord_individual_obj[individual_i, :] = [17. 3. 46. 49.]
986 cord_individual_obj[individual_i, :] = [18. 5. 36. 41.]
987 cord_individual_obj[individual_i, :] = [19. 4. 50. 54.]
988
989 min(cord_individual_obj[:, 3]) = 11.0
990 historl_G_best_iter[iter, 3] = 11.0
991 Begin iteration:
992
993 iter = 37
994 cord_individual_obj[individual_i, :] = [ 0. 6. 24. 30.]
995 cord_individual_obj[individual_i, :] = [ 1. 5. 62. 67.]
996 cord_individual_obj[individual_i, :] = [ 2. 5. 70. 75.]
997 cord_individual_obj[individual_i, :] = [ 3. 6. 8. 14.]
998 cord_individual_obj[individual_i, :] = [ 4. 3. 52. 55.]
999 cord_individual_obj[individual_i, :] = [ 5. 5. 20. 25.]
1000 cord_individual_obj[individual_i, :] = [ 6. 4. 18. 22.]
1001 cord_individual_obj[individual_i, :] = [ 7. 3. 12. 15.]
1002 cord_individual_obj[individual_i, :] = [ 8. 4. 26. 30.]
1003 cord_individual_obj[individual_i, :] = [ 9. 4. 32. 36.]

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1004 cord_individual_obj[individual_i, :] = [10. 6. 38. 44.]
1005 cord_individual_obj[individual_i, :] = [11. 3. 8. 11.]
1006 cord_individual_obj[individual_i, :] = [12. 4. 18. 22.]
1007 cord_individual_obj[individual_i, :] = [13. 6. 12. 18.]
1008 cord_individual_obj[individual_i, :] = [14. 4. 62. 66.]
1009 cord_individual_obj[individual_i, :] = [15. 5. 18. 23.]
1010 cord_individual_obj[individual_i, :] = [16. 5. 60. 65.]
1011 cord_individual_obj[individual_i, :] = [17. 5. 36. 41.]
1012 cord_individual_obj[individual_i, :] = [18. 4. 32. 36.]
1013 cord_individual_obj[individual_i, :] = [19. 6. 24. 30.]
1014
1015 min(cord_individual_obj[:, 3]) = 11.0
1016 historl_G_best_iter[iter, 3] = 11.0
1017 Begin iteration:
1018
1019 iter = 38
1020 cord_individual_obj[individual_i, :] = [ 0. 5. 24. 29.]
1021 cord_individual_obj[individual_i, :] = [ 1. 6. 74. 80.]
1022 cord_individual_obj[individual_i, :] = [ 2. 3. 8. 11.]
1023 cord_individual_obj[individual_i, :] = [ 3. 5. 18. 23.]
1024 cord_individual_obj[individual_i, :] = [ 4. 3. 44. 47.]
1025 cord_individual_obj[individual_i, :] = [ 5. 4. 44. 48.]
1026 cord_individual_obj[individual_i, :] = [ 6. 4. 34. 38.]
1027 cord_individual_obj[individual_i, :] = [ 7. 4. 36. 40.]
1028 cord_individual_obj[individual_i, :] = [ 8. 4. 48. 52.]
1029 cord_individual_obj[individual_i, :] = [ 9. 5. 54. 59.]
1030 cord_individual_obj[individual_i, :] = [10. 4. 46. 50.]
1031 cord_individual_obj[individual_i, :] = [11. 5. 90. 95.]
1032 cord_individual_obj[individual_i, :] = [12. 4. 42. 46.]
1033 cord_individual_obj[individual_i, :] = [13. 5. 12. 17.]
1034 cord_individual_obj[individual_i, :] = [14. 4. 58. 62.]
1035 cord_individual_obj[individual_i, :] = [15. 5. 56. 61.]
1036 cord_individual_obj[individual_i, :] = [16. 4. 56. 60.]
1037 cord_individual_obj[individual_i, :] = [17. 5. 24. 29.]
1038 cord_individual_obj[individual_i, :] = [18. 5. 36. 41.]
1039 cord_individual_obj[individual_i, :] = [19. 5. 28. 33.]
1040
1041 min(cord_individual_obj[:, 3]) = 11.0
1042 historl_G_best_iter[iter, 3] = 11.0
1043 Begin iteration:
1044
1045 iter = 39
1046 cord_individual_obj[individual_i, :] = [ 0. 6. 8. 14.]
1047 cord_individual_obj[individual_i, :] = [ 1. 6. 44. 50.]
1048 cord_individual_obj[individual_i, :] = [ 2. 3. 20. 23.]
1049 cord_individual_obj[individual_i, :] = [ 3. 5. 18. 23.]
1050 cord_individual_obj[individual_i, :] = [ 4. 3. 56. 59.]
1051 cord_individual_obj[individual_i, :] = [ 5. 5. 30. 35.]
1052 cord_individual_obj[individual_i, :] = [ 6. 4. 34. 38.]
1053 cord_individual_obj[individual_i, :] = [ 7. 4. 20. 24.]
1054 cord_individual_obj[individual_i, :] = [ 8. 4. 24. 28.]
1055 cord_individual_obj[individual_i, :] = [ 9. 5. 54. 59.]
1056 cord_individual_obj[individual_i, :] = [10. 6. 16. 22.]
1057 cord_individual_obj[individual_i, :] = [11. 3. 8. 11.]
1058 cord_individual_obj[individual_i, :] = [12. 4. 52. 56.]
1059 cord_individual_obj[individual_i, :] = [13. 6. 12. 18.]
1060 cord_individual_obj[individual_i, :] = [14. 4. 94. 98.]
1061 cord_individual_obj[individual_i, :] = [15. 5. 34. 39.]
1062 cord_individual_obj[individual_i, :] = [16. 5. 56. 61.]
1063 cord_individual_obj[individual_i, :] = [17. 5. 24. 29.]
1064 cord_individual_obj[individual_i, :] = [18. 5. 36. 41.]
1065 cord_individual_obj[individual_i, :] = [19. 6. 12. 18.]
1066
1067 min(cord_individual_obj[:, 3]) = 11.0
1068 historl_G_best_iter[iter, 3] = 11.0
1069 Begin iteration:
1070
1071 iter = 40
1072 cord_individual_obj[individual_i, :] = [ 0. 3. 60. 63.]
1073 cord_individual_obj[individual_i, :] = [ 1. 5. 56. 61.]
1074 cord_individual_obj[individual_i, :] = [ 2. 5. 64. 69.]
1075 cord_individual_obj[individual_i, :] = [ 3. 6. 16. 22.]
1076 cord_individual_obj[individual_i, :] = [ 4. 3. 52. 55.]
1077 cord_individual_obj[individual_i, :] = [ 5. 5. 28. 33.]
1078 cord_individual_obj[individual_i, :] = [ 6. 6. 18. 24.]
1079 cord_individual_obj[individual_i, :] = [ 7. 3. 18. 21.]
1080 cord_individual_obj[individual_i, :] = [ 8. 5. 24. 29.]
1081 cord_individual_obj[individual_i, :] = [ 9. 5. 76. 81.]
1082 cord_individual_obj[individual_i, :] = [10. 4. 28. 32.]
1083 cord_individual_obj[individual_i, :] = [11. 4. 90. 94.]
1084 cord_individual_obj[individual_i, :] = [12. 4. 44. 48.]
1085 cord_individual_obj[individual_i, :] = [13. 4. 12. 16.]
1086 cord_individual_obj[individual_i, :] = [14. 3. 8. 11.]
1087 cord_individual_obj[individual_i, :] = [15. 4. 18. 22.]

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1088 cord_individual_obj[individual_i, :] = [16. 5. 44. 49.]
1089 cord_individual_obj[individual_i, :] = [17. 6. 16. 22.]
1090 cord_individual_obj[individual_i, :] = [18. 5. 32. 37.]
1091 cord_individual_obj[individual_i, :] = [19. 5. 24. 29.]
1092
1093 min(cord_individual_obj[:, 3]) = 11.0
1094 historl_G_best_iter[iter, 3] = 11.0
1095 Iteration calculate over
1096
1097
1098
1099
1100 All item are in Bin and:
1101 Bin area = 1080
1102 Real_area = 96.0
1103 Proportion_of_area = 0.08888888888888889
1104 BEST_CHROM =
1105     berth: [ 2.5 26. 20. 7.5 15.5 12. ]
1106     time: [0. 0. 0. 0. 0.]
1107     num_QC: [4. 2. 4. 3. 3. 3.]
1108 Objective function values and some other indicators:
1109 Obj0 = 3.00      Obj1 = 8.00      Obj0 + Obj1 = 11.00
1110 Total movement of crane: 8.00
1111 Total waiting time in berth position: 0.00
1112 Total index of q during berthing: 666.00
1113 Specific arrangement for each vessel:
1114 V_id: 0          li: 5.0           xi: 2.5           bow of i: 0.0           tail of i: 5.0           gama_i0: 0.0           gama_i1: 0.0
1115 : 80.0          gama_i1 + 1: 1.0   gama_i1 - gama_i0: 0.0   duration_time_i: 1.0   demand_i: 80.0       work load_i
1115 V_id: 1          li: 6.0           xi: 26.0          bow of i: 23.0          tail of i: 29.0          gama_i0: 0.0           gama_i1: 0.0
1115 : 2.0           gama_i1 + 1: 3.0   gama_i1 - gama_i0: 2.0   duration_time_i: 3.0   demand_i: 120.0      work
1116 load_i: 120.0
1116 V_id: 2          li: 6.0           xi: 20.0          bow of i: 17.0          tail of i: 23.0          gama_i0: 0.0           gama_i1: 0.0
1116 : 3.0           gama_i1 + 1: 4.0   gama_i1 - gama_i0: 3.0   duration_time_i: 4.0   demand_i: 260.0      work
1116 load_i: 260.0
1117 V_id: 3          li: 5.0           xi: 7.5           bow of i: 5.0           tail of i: 10.0          gama_i0: 0.0           gama_i1: 1.0
1117 : 80.0           gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 80.0       work load_i
1117 work load gap_i: 0
1118 V_id: 4          li: 3.0           xi: 15.5          bow of i: 14.0          tail of i: 17.0          gama_i0: 0.0           gama_i1: 0.0
1118 : 3.0           gama_i1 + 1: 4.0   gama_i1 - gama_i0: 3.0   duration_time_i: 4.0   demand_i: 200.0      work
1118 load_i: 200.0
1119 V_id: 5          li: 4.0           xi: 12.0          bow of i: 10.0          tail of i: 14.0          gama_i0: 0.0           gama_i1: 0.0
1119 : 3.0           gama_i1 + 1: 4.0   gama_i1 - gama_i0: 3.0   duration_time_i: 4.0   demand_i: 220.0      work
1119 load_i: 220.0
1119 work load gap_i: 0
1120
1121 Algorithm finished and the total CPU time: 251 s
1122 End
1123

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