Starting matlabpool using the 'local' configuration ... connected to 8 labs.

Best Mean Stall

Generation f-count f(x) f(x) Generations

1 200 4742 1.863e+006 0

2 300 4670 1.67e+005 0

3 400 281.1 2.8e+006 0

4 500 54.62 3.503e+007 0

5 600 28.91 2.929e+007 0

6 700 28.91 7.268e+006 1

7 800 28.91 2.228e+004 2

8 900 28.91 6127 0

9 1000 28.91 5240 1

10 1100 23.58 8826 0

11 1200 23.58 6086 1

12 1300 23.58 5753 2

13 1400 23.58 5278 0

14 1500 23.58 3719 1

15 1600 23.58 3707 2

16 1700 23.58 3006 3

Optimization terminated: stop requested from plot function.

Switching to the hybrid optimization algorithm (FMINSEARCH).

Iteration Func-count min f(x) Procedure

0 1 23.5761

1 5 23.5761 initial simplex

2 7 23.5761 contract outside

3 9 23.5761 contract inside

4 11 23.5761 contract inside

5 13 23.5761 contract inside

6 15 23.5761 contract inside

7 17 23.5761 contract inside

8 19 23.5761 contract inside

9 21 23.5761 contract inside

10 23 23.5761 contract inside

11 25 23.5761 contract inside

12 27 23.5761 contract inside

13 29 23.5761 contract outside

14 31 23.1326 contract inside

15 33 23.1326 contract outside

16 35 22.4021 contract inside

17 37 22.1658 contract inside

18 38 22.1658 reflect

19 40 22.1658 contract inside

20 42 22.1658 contract inside

21 44 22.1469 contract inside

22 46 22.0188 contract inside

23 48 22.0188 contract outside

24 50 21.999 contract inside

25 52 21.9012 contract inside

26 54 21.8611 contract inside

27 55 21.8611 reflect

28 57 21.8599 contract inside

29 59 21.8327 contract inside

30 61 21.8177 contract outside

31 63 21.8068 contract inside

32 65 21.7799 contract inside

33 66 21.7799 reflect

34 68 21.7795 contract inside

35 70 21.7795 contract inside

36 72 21.7722 contract inside

37 74 21.7722 contract outside

38 76 21.761 contract inside

39 78 21.7564 contract inside

40 79 21.7564 reflect

41 81 21.7564 contract inside

42 83 21.7564 contract inside

43 85 21.756 contract inside

44 87 21.7543 contract inside

45 89 21.7537 contract inside

46 91 21.7521 contract inside

47 92 21.7521 reflect

48 94 21.7517 contract inside

49 96 21.7505 contract inside

50 97 21.7505 reflect

51 99 21.75 contract inside

52 101 21.7497 contract inside

53 102 21.7497 reflect

54 104 21.7497 contract inside

55 106 21.7493 contract inside

56 108 21.7493 contract inside

57 110 21.7493 contract inside

58 112 21.7491 contract inside

59 114 21.7489 reflect

60 116 21.7489 contract inside

61 118 21.7489 contract inside

62 120 21.7487 reflect

63 122 21.7487 contract outside

64 124 21.7484 reflect

65 126 21.7482 expand

66 127 21.7482 reflect

67 129 21.748 expand

68 131 21.7479 expand

69 133 21.7479 contract inside

70 135 21.7471 expand

71 136 21.7471 reflect

72 137 21.7471 reflect

73 139 21.7461 expand

74 141 21.7448 expand

75 142 21.7448 reflect

76 144 21.7428 expand

77 146 21.7393 expand

78 147 21.7393 reflect

79 149 21.733 expand

80 151 21.7238 expand

81 152 21.7238 reflect

82 154 21.7051 expand

83 156 21.6986 expand

84 157 21.6986 reflect

85 159 21.6979 reflect

86 160 21.6979 reflect

87 162 21.6979 contract inside

88 164 21.6979 contract inside

89 165 21.6979 reflect

90 167 21.6979 contract inside

91 169 21.6979 contract outside

92 170 21.6979 reflect

93 172 21.6979 contract inside

94 173 21.6979 reflect

95 174 21.6979 reflect

96 176 21.6979 contract inside

97 178 21.6977 reflect

98 179 21.6977 reflect

99 180 21.6977 reflect

100 181 21.6977 reflect

101 183 21.6971 expand

102 184 21.6971 reflect

103 186 21.6971 contract inside

104 188 21.6966 expand

105 189 21.6966 reflect

106 191 21.6956 expand

107 192 21.6956 reflect

108 194 21.695 expand

109 196 21.6937 expand

110 197 21.6937 reflect

111 199 21.6907 expand

112 200 21.6907 reflect

113 202 21.6871 expand

114 203 21.6871 reflect

115 205 21.6798 expand

116 206 21.6798 reflect

117 208 21.6775 reflect

118 209 21.6775 reflect

119 211 21.6775 contract inside

120 213 21.6748 expand

121 215 21.6683 expand

122 216 21.6683 reflect

123 218 21.6655 expand

124 220 21.6617 reflect

125 222 21.6526 reflect

126 223 21.6526 reflect

127 224 21.6526 reflect

128 226 21.647 expand

129 227 21.647 reflect

130 229 21.6414 reflect

131 230 21.6414 reflect

132 232 21.6331 reflect

133 234 21.6331 contract inside

134 235 21.6331 reflect

135 236 21.6331 reflect

136 238 21.6327 reflect

137 240 21.6266 reflect

138 242 21.6266 contract inside

139 243 21.6266 reflect

140 245 21.6252 reflect

141 247 21.6098 expand

142 249 21.6098 contract outside

143 250 21.6098 reflect

144 251 21.6098 reflect

145 253 21.5971 expand

146 255 21.5814 expand

147 256 21.5814 reflect

148 258 21.5814 contract inside

149 260 21.5661 expand

150 261 21.5661 reflect

151 263 21.5463 expand

152 264 21.5463 reflect

153 265 21.5463 reflect

154 266 21.5463 reflect

155 268 21.5463 contract inside

156 270 21.5288 expand

157 272 21.5288 contract inside

158 273 21.5288 reflect

159 274 21.5288 reflect

160 275 21.5288 reflect

161 277 21.5066 expand

162 278 21.5066 reflect

163 279 21.5066 reflect

164 281 21.5066 contract outside

165 283 21.4929 expand

166 284 21.4929 reflect

167 285 21.4929 reflect

168 286 21.4929 reflect

169 288 21.4901 reflect

170 290 21.4604 expand

171 292 21.4604 contract outside

172 294 21.4604 contract inside

173 295 21.4604 reflect

174 297 21.4604 contract outside

175 299 21.4458 expand

176 301 21.4458 contract inside

177 303 21.4318 expand

178 305 21.4318 reflect

179 307 21.4213 reflect

180 308 21.4213 reflect

181 310 21.4208 contract outside

182 312 21.4123 reflect

183 314 21.4096 reflect

184 316 21.4096 contract inside

185 318 21.4068 reflect

186 320 21.4068 contract outside

187 322 21.393 expand

188 324 21.393 contract inside

189 325 21.393 reflect

190 327 21.3862 reflect

191 328 21.3862 reflect

192 330 21.3736 expand

193 332 21.3687 expand

194 333 21.3687 reflect

195 334 21.3687 reflect

196 335 21.3687 reflect

197 337 21.3609 contract inside

198 338 21.3609 reflect

199 339 21.3609 reflect

200 341 21.3582 reflect

201 342 21.3582 reflect

202 344 21.3453 expand

203 346 21.3453 contract inside

204 347 21.3453 reflect

205 349 21.3416 reflect

206 351 21.3416 contract inside

207 353 21.3261 expand

208 355 21.3261 contract inside

209 356 21.3261 reflect

210 358 21.3257 reflect

211 359 21.3257 reflect

212 361 21.3186 reflect

213 363 21.3186 contract inside

214 365 21.3186 contract outside

215 366 21.3186 reflect

216 368 21.3186 contract inside

217 370 21.3172 expand

218 371 21.3172 reflect

219 373 21.3158 reflect

220 375 21.3149 reflect

221 377 21.3149 contract inside

222 379 21.3079 expand

223 380 21.3079 reflect

224 382 21.3048 expand

225 384 21.3048 contract inside

226 385 21.3048 reflect

227 387 21.2946 expand

228 388 21.2946 reflect

229 389 21.2946 reflect

230 390 21.2946 reflect

231 392 21.2917 expand

232 394 21.2917 contract inside

233 396 21.2901 reflect

234 398 21.276 expand

235 400 21.276 contract inside

236 402 21.2671 expand

237 403 21.2671 reflect

238 404 21.2671 reflect

239 405 21.2671 reflect

240 407 21.2632 reflect

241 409 21.2479 expand

242 411 21.2479 contract inside

243 412 21.2479 reflect

244 414 21.2479 contract outside

245 415 21.2479 reflect

246 416 21.2479 reflect

247 417 21.2479 reflect

248 419 21.2355 expand

249 420 21.2355 reflect

250 422 21.2279 reflect

251 424 21.2279 contract inside

252 426 21.2206 expand

253 427 21.2206 reflect

254 428 21.2206 reflect

255 430 21.2003 expand

256 431 21.2003 reflect

257 432 21.2003 reflect

258 433 21.2003 reflect

259 435 21.1911 reflect

260 437 21.1911 contract outside

261 438 21.1911 reflect

262 439 21.1911 reflect

263 441 21.1911 contract inside

264 443 21.1907 contract inside

265 445 21.1873 reflect

266 447 21.1834 contract inside

267 449 21.1788 reflect

268 451 21.1788 contract inside

269 453 21.1788 contract outside

270 455 21.1788 contract inside

271 457 21.1762 expand

272 459 21.1762 contract inside

273 461 21.1762 contract inside

274 463 21.1733 expand

275 465 21.1702 reflect

276 467 21.1695 reflect

277 469 21.1656 reflect

278 470 21.1656 reflect

279 471 21.1656 reflect

280 473 21.16 reflect

281 475 21.1595 contract inside

282 477 21.1595 contract outside

283 479 21.1576 reflect

284 481 21.1503 expand

285 483 21.1503 contract inside

286 484 21.1503 reflect

287 486 21.1503 contract inside

288 487 21.1503 reflect

289 489 21.1474 expand

290 490 21.1474 reflect

291 491 21.1474 reflect

292 493 21.1438 reflect

293 494 21.1438 reflect

294 495 21.1438 reflect

295 497 21.1409 reflect

296 499 21.1326 expand

297 501 21.1326 contract inside

298 503 21.1326 contract inside

299 504 21.1326 reflect

300 505 21.1326 reflect

301 507 21.1301 reflect

302 509 21.1281 expand

303 511 21.1281 contract inside

304 512 21.1281 reflect

305 514 21.1245 expand

306 516 21.1234 reflect

307 518 21.1234 contract inside

308 520 21.1234 contract inside

309 522 21.1195 reflect

310 523 21.1195 reflect

311 525 21.1188 reflect

312 526 21.1188 reflect

313 528 21.1165 reflect

314 530 21.1165 contract inside

315 532 21.1163 reflect

316 534 21.1163 contract inside

317 536 21.1139 reflect

318 538 21.1139 reflect

319 540 21.1118 reflect

320 541 21.1118 reflect

321 543 21.1093 reflect

322 545 21.1093 contract inside

323 546 21.1093 reflect

324 548 21.109 contract outside

325 550 21.1086 contract outside

326 552 21.108 expand

327 554 21.108 contract inside

328 556 21.108 contract inside

329 558 21.1078 reflect

330 559 21.1078 reflect

331 561 21.107 reflect

332 563 21.107 contract inside

333 565 21.1066 expand

334 566 21.1066 reflect

335 568 21.1056 expand

336 570 21.1039 expand

337 572 21.1039 contract inside

338 573 21.1039 reflect

339 575 21.1011 expand

340 576 21.1011 reflect

341 578 21.0997 expand

342 579 21.0997 reflect

343 580 21.0997 reflect

344 581 21.0997 reflect

345 583 21.0921 expand

346 584 21.0921 reflect

347 585 21.0921 reflect

348 587 21.0881 expand

349 589 21.0816 expand

350 591 21.0816 contract inside

351 592 21.0816 reflect

352 594 21.0792 reflect

353 595 21.0792 reflect

354 597 21.0761 expand

355 599 21.0684 expand

356 600 21.0684 reflect

357 602 21.0567 expand

358 604 21.0567 contract outside

359 605 21.0567 reflect

360 607 21.0516 reflect

361 609 21.0516 contract inside

362 611 21.042 expand

363 612 21.042 reflect

364 614 21.042 contract inside

365 616 21.0393 expand

366 618 21.0393 contract outside

367 619 21.0393 reflect

368 621 21.0393 contract outside

369 623 21.0376 reflect

370 625 21.0353 reflect

371 626 21.0353 reflect

372 628 21.0329 expand

373 629 21.0329 reflect

374 631 21.0224 expand

375 632 21.0224 reflect

376 634 21.021 expand

377 636 21.0209 reflect

378 638 21.0209 contract inside

379 640 21.0132 reflect

380 641 21.0132 reflect

381 642 21.0132 reflect

382 644 21.0045 expand

383 646 20.9923 expand

384 648 20.9923 contract inside

385 649 20.9923 reflect

386 650 20.9923 reflect

387 652 20.9762 expand

388 654 20.9762 contract inside

389 656 20.9666 expand

390 658 20.9666 contract inside

391 659 20.9666 reflect

392 660 20.9666 reflect

393 661 20.9666 reflect

394 663 20.9579 expand

395 665 20.9579 contract inside

396 666 20.9579 reflect

397 668 20.9579 contract outside

398 669 20.9579 reflect

399 671 20.9511 reflect

400 673 20.9511 contract inside

401 675 20.9511 contract outside

402 676 20.9511 reflect

403 678 20.951 contract inside

404 679 20.951 reflect

405 681 20.9481 reflect

406 683 20.9471 reflect

407 684 20.9471 reflect

408 686 20.9471 contract inside

409 688 20.9417 expand

410 690 20.9394 reflect

411 691 20.9394 reflect

412 692 20.9394 reflect

413 693 20.9394 reflect

414 695 20.9362 contract inside

415 697 20.9309 expand

416 698 20.9309 reflect

417 700 20.9309 contract inside

418 702 20.9287 expand

419 703 20.9287 reflect

420 704 20.9287 reflect

421 705 20.9287 reflect

422 707 20.9189 expand

423 709 20.9189 contract outside

424 710 20.9189 reflect

425 711 20.9189 reflect

426 713 20.9186 reflect

427 715 20.9186 contract inside

428 717 20.9089 expand

429 718 20.9089 reflect

430 719 20.9089 reflect

431 721 20.901 expand

432 723 20.901 contract inside

433 724 20.901 reflect

434 726 20.8891 expand

435 727 20.8891 reflect

436 728 20.8891 reflect

437 729 20.8891 reflect

438 731 20.8703 expand

439 733 20.8703 contract inside

440 734 20.8703 reflect

441 735 20.8703 reflect

442 737 20.8703 contract inside

443 738 20.8703 reflect

444 740 20.867 expand

445 742 20.8593 expand

446 744 20.8593 contract outside

447 746 20.858 reflect

448 748 20.858 contract inside

449 749 20.858 reflect

450 750 20.858 reflect

451 752 20.8512 contract inside

452 753 20.8512 reflect

453 754 20.8512 reflect

454 756 20.8512 contract inside

455 758 20.847 expand

456 760 20.847 contract outside

457 762 20.847 contract inside

458 764 20.8396 expand

459 766 20.8396 contract inside

460 768 20.8364 expand

461 769 20.8364 reflect

462 771 20.8314 expand

463 773 20.8314 contract outside

464 774 20.8314 reflect

465 775 20.8314 reflect

466 776 20.8314 reflect

467 778 20.8272 reflect

468 779 20.8272 reflect

469 781 20.8272 contract outside

470 782 20.8272 reflect

471 784 20.8185 expand

472 786 20.8185 contract inside

473 788 20.8185 contract inside

474 789 20.8185 reflect

475 790 20.8185 reflect

476 791 20.8185 reflect

477 792 20.8185 reflect

478 794 20.811 expand

479 796 20.811 contract inside

480 797 20.811 reflect

481 798 20.811 reflect

482 800 20.811 reflect

Exiting: Maximum number of function evaluations has been exceeded

- increase MaxFunEvals option.

Current function value: 20.810968

FMINSEARCH terminated.

**x =[2.4694,0.9595,0.3687,0.0887]; % fval =20.8110;**

exitflag =-1

output =

problemtype: 'unconstrained'

rngstate: [1x1 struct]

generations: 16

funccount: 2500

message: [1x223 char]

Sending a stop signal to all the labs ... stopped.

Caculation finished and the elapsedTime= 15.3188hours

**x =[2.4694,0.9595,0.3687,0.0887]; % fval =20.8110; AR =2.9580;**

**P\_asterisk =20.8113; L =1.0001; delta =7.5094e-005;**

**penaltyfun1 =0.1502; penaltyfun2 =0; penaltyfun5 =0; obj\_function =20.9615;**