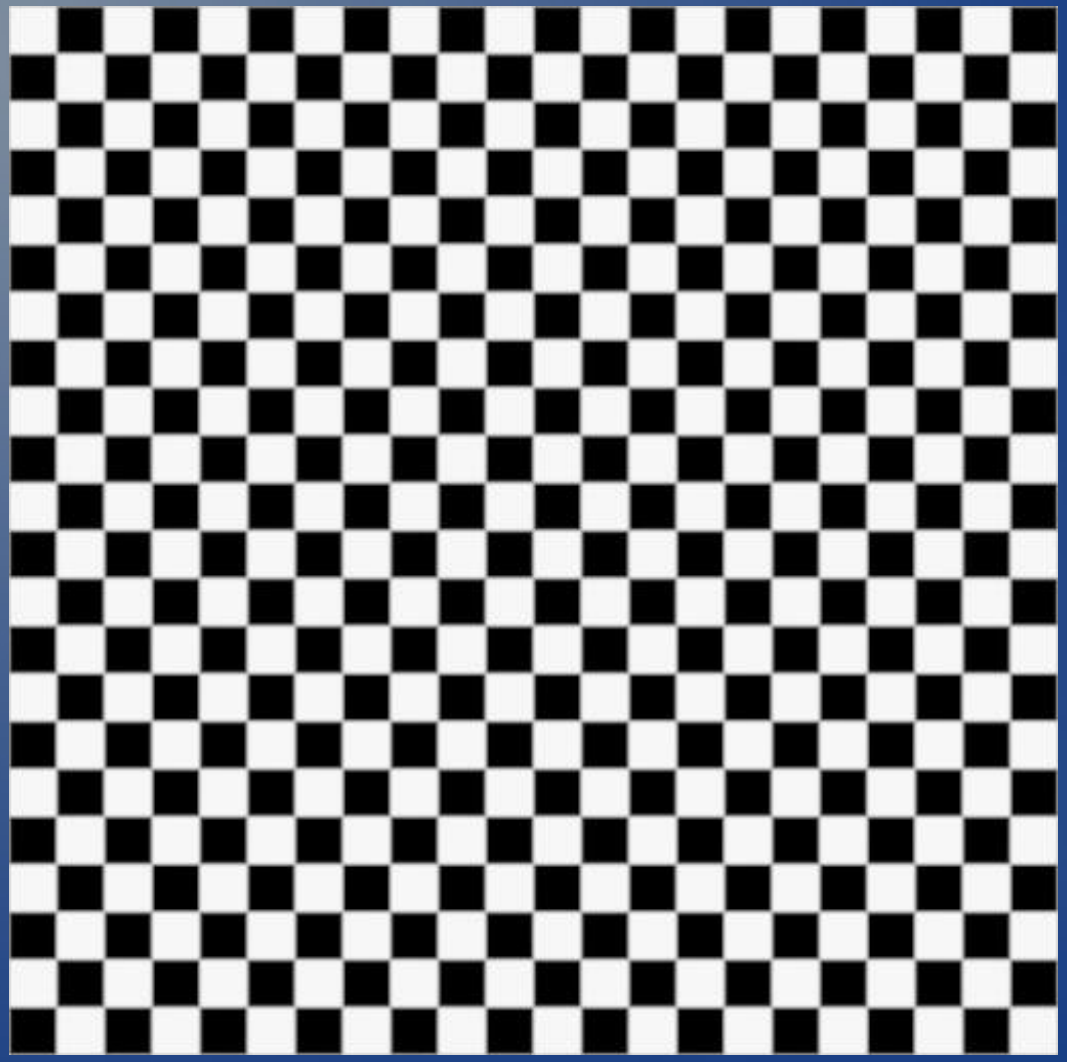
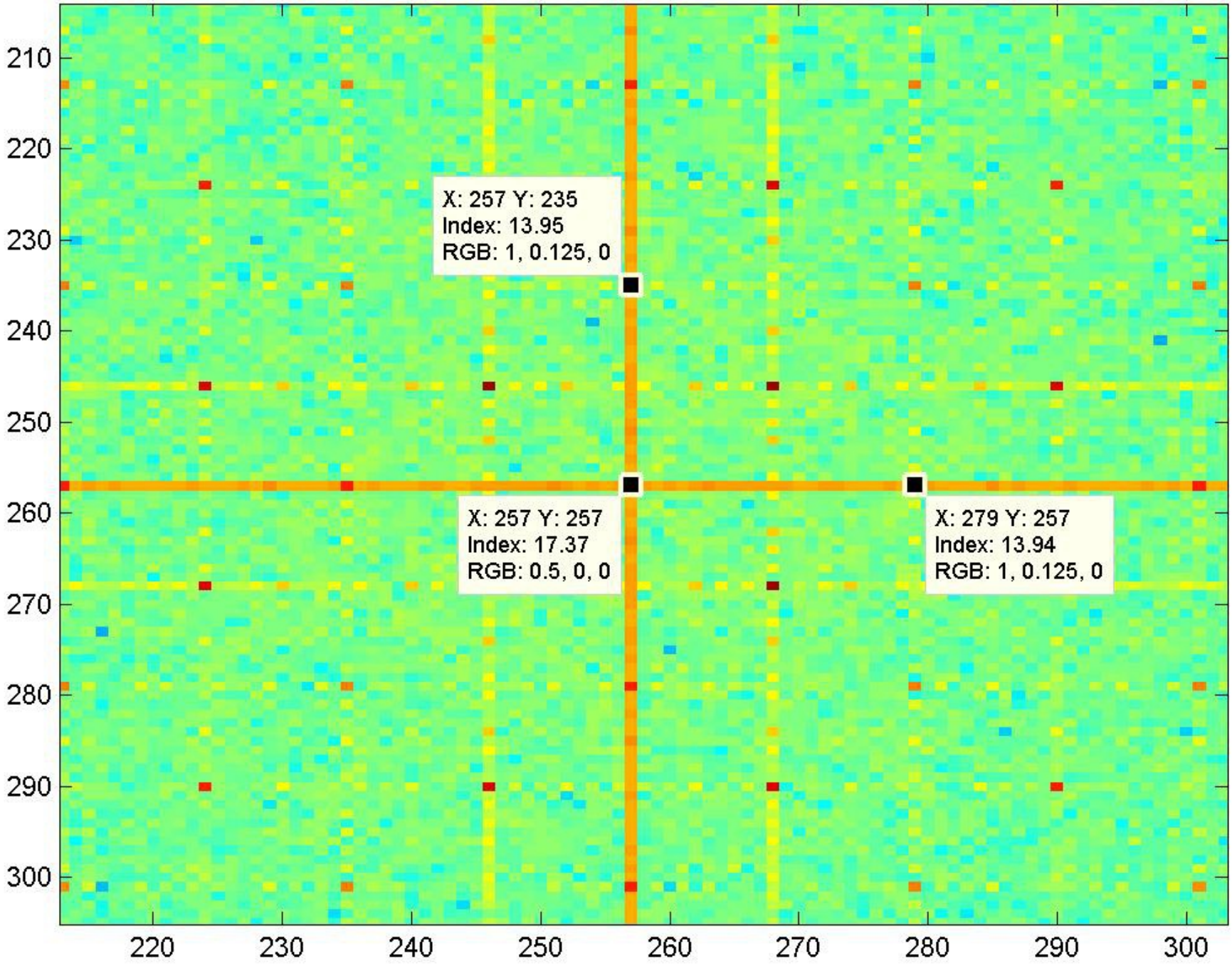
Week 6

Cody Seibert

Counting using Fourier Transform (484 squares)

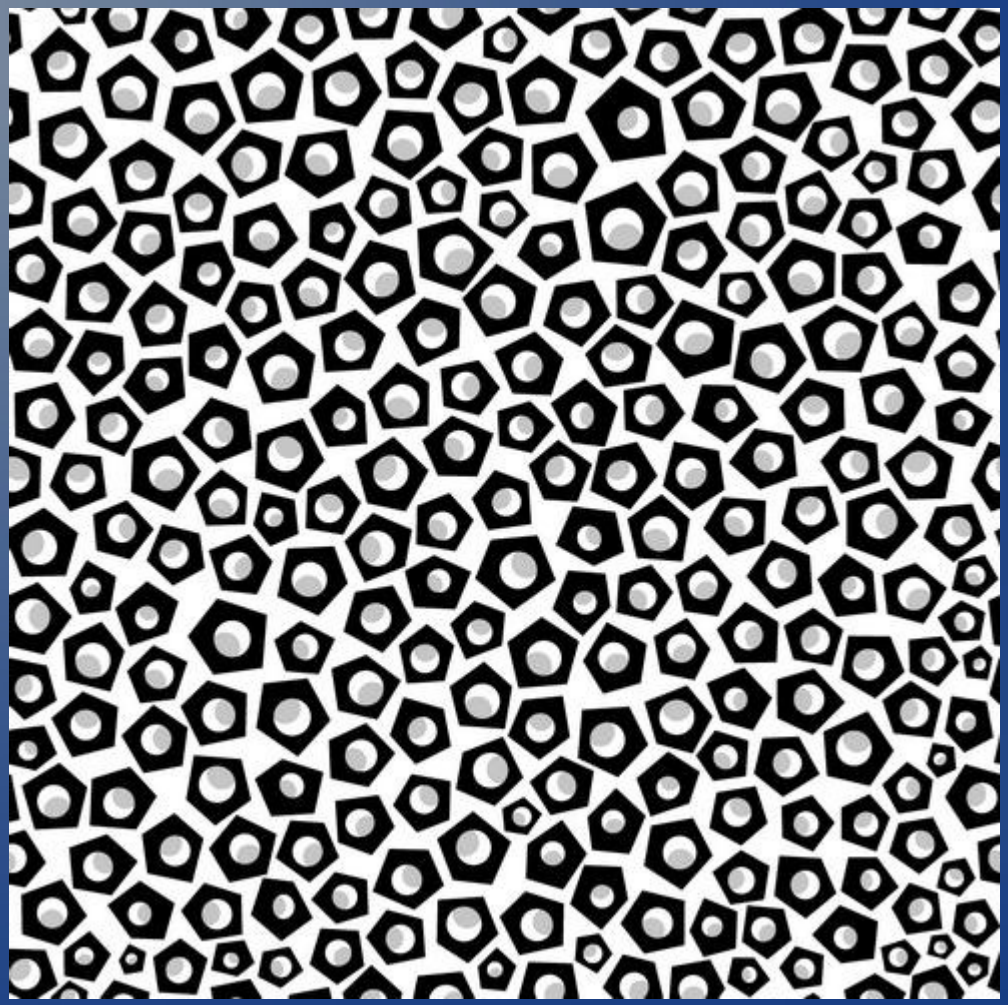


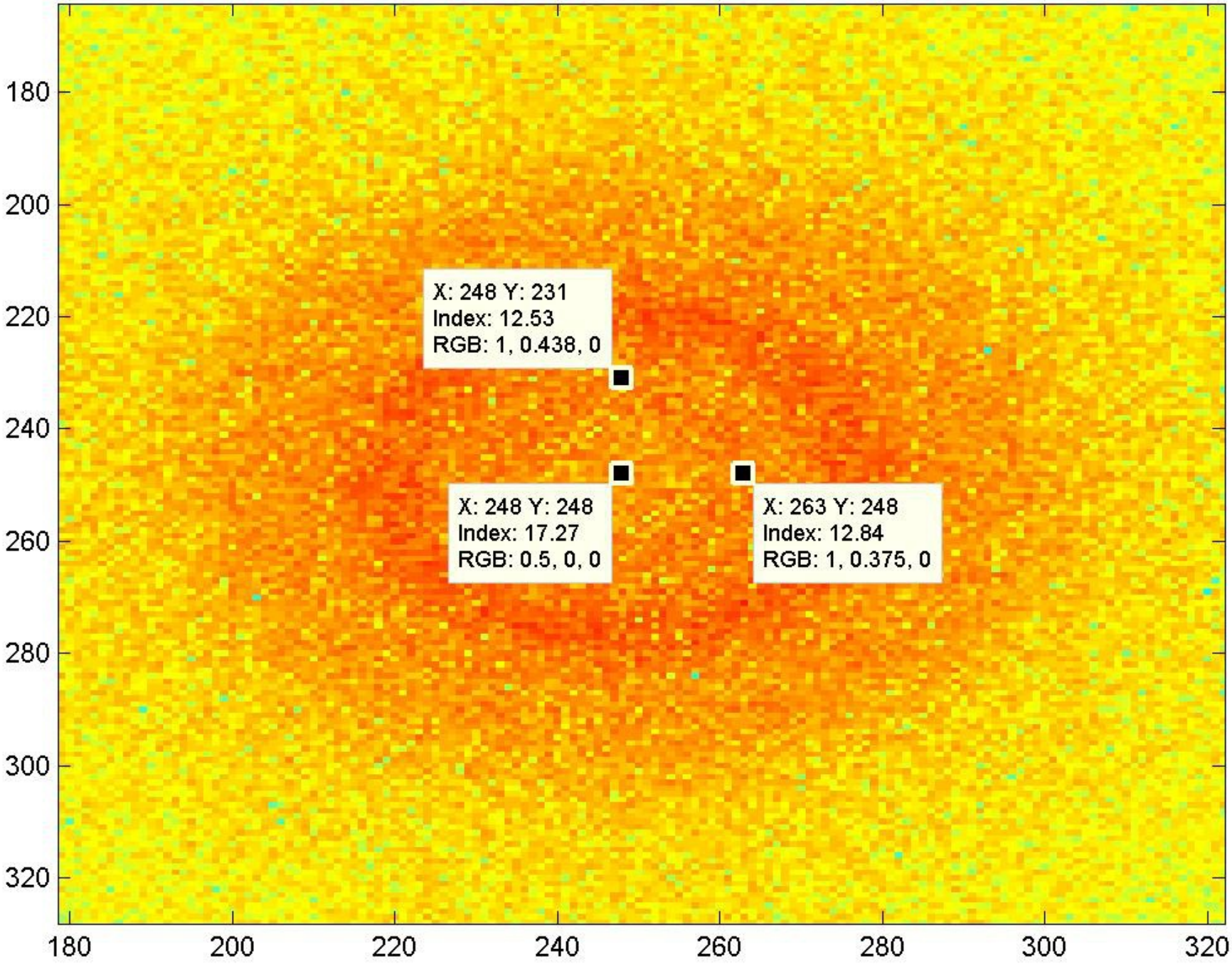

X: 257 Y: 235
Index: 13.95
RGB: 1, 0.125, 0
X: 257 Y: 257
Index: 17.37
RGB: 0.5, 0, 0
X: 279 Y: 257
Index: 13.94
RGB: 1, 0.125, 0
210
220
230
240
250
260
270
280
290
300
220
230
240
250
260
270
280
290
300

Counting using Fourier Transform (484 squares)

- Take the distances from center to peaks. The product of those will be the estimated count.
  - 22 * 22 = 484
- This method works on all regular textures I have tried it on

Counting using Fourier Transform (258 objects)

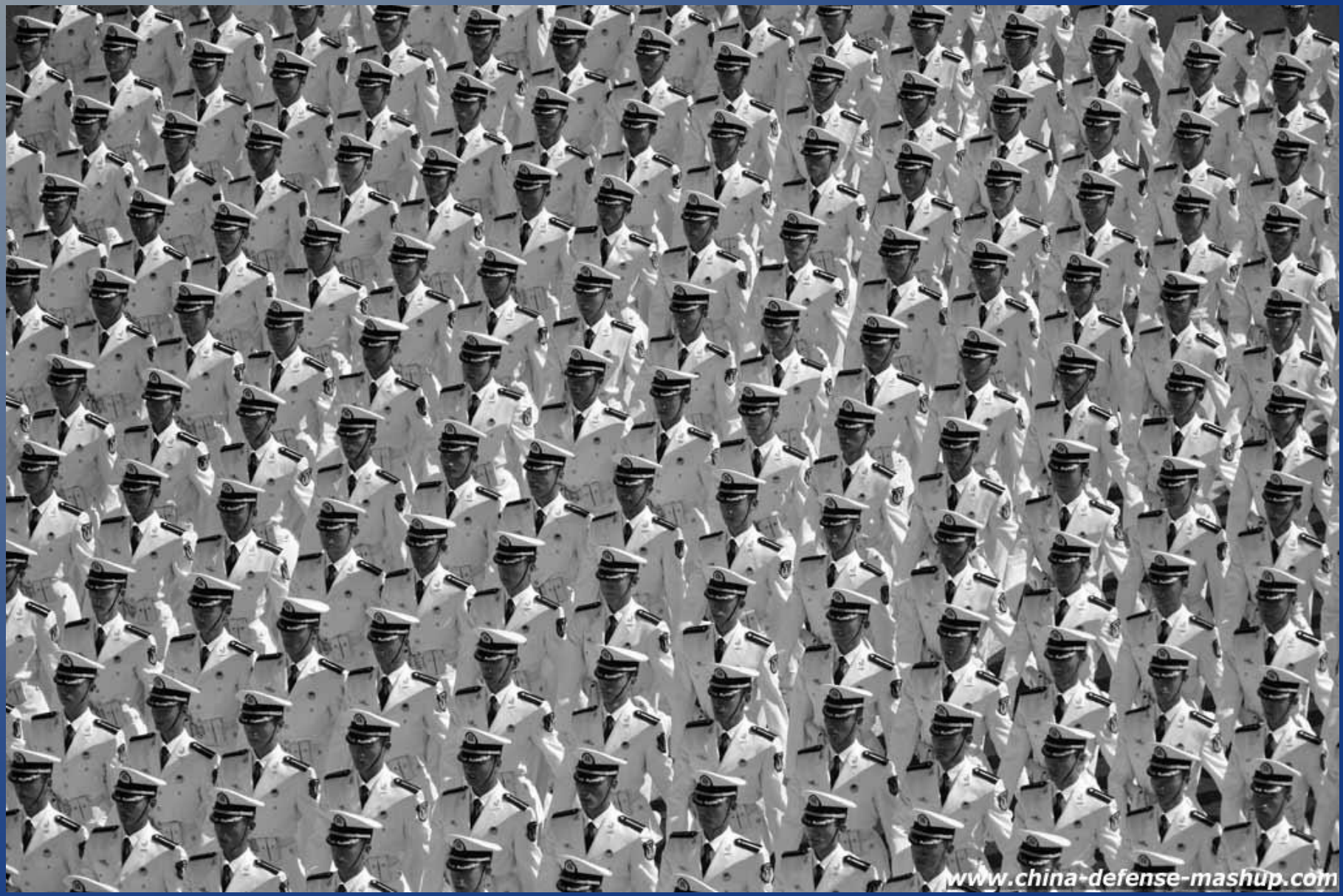


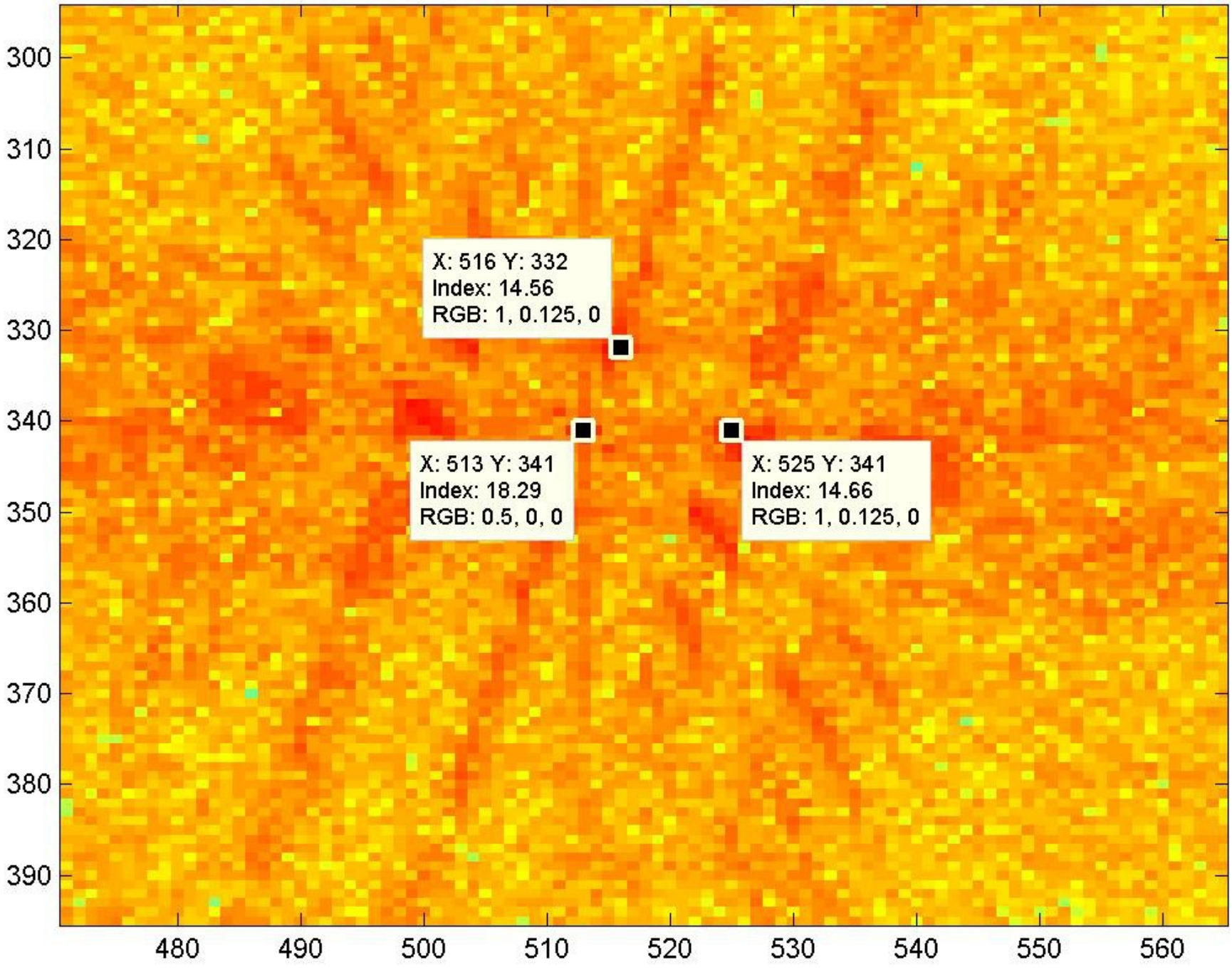

X: 248 Y: 231
Index: 12.53
RGB: 1, 0.438, 0
X: 248 Y: 248
Index: 17.27
RGB: 0.5, 0, 0
X: 263 Y: 248
Index: 12.84
RGB: 1, 0.375, 0
180
200
220
240
260
280
300
320
180
200
220
240
260
280
300
320

Counting using Fourier Transform (258 objects)

- 17 * 15 = 255

Counting using Fourier Transform (137 people)

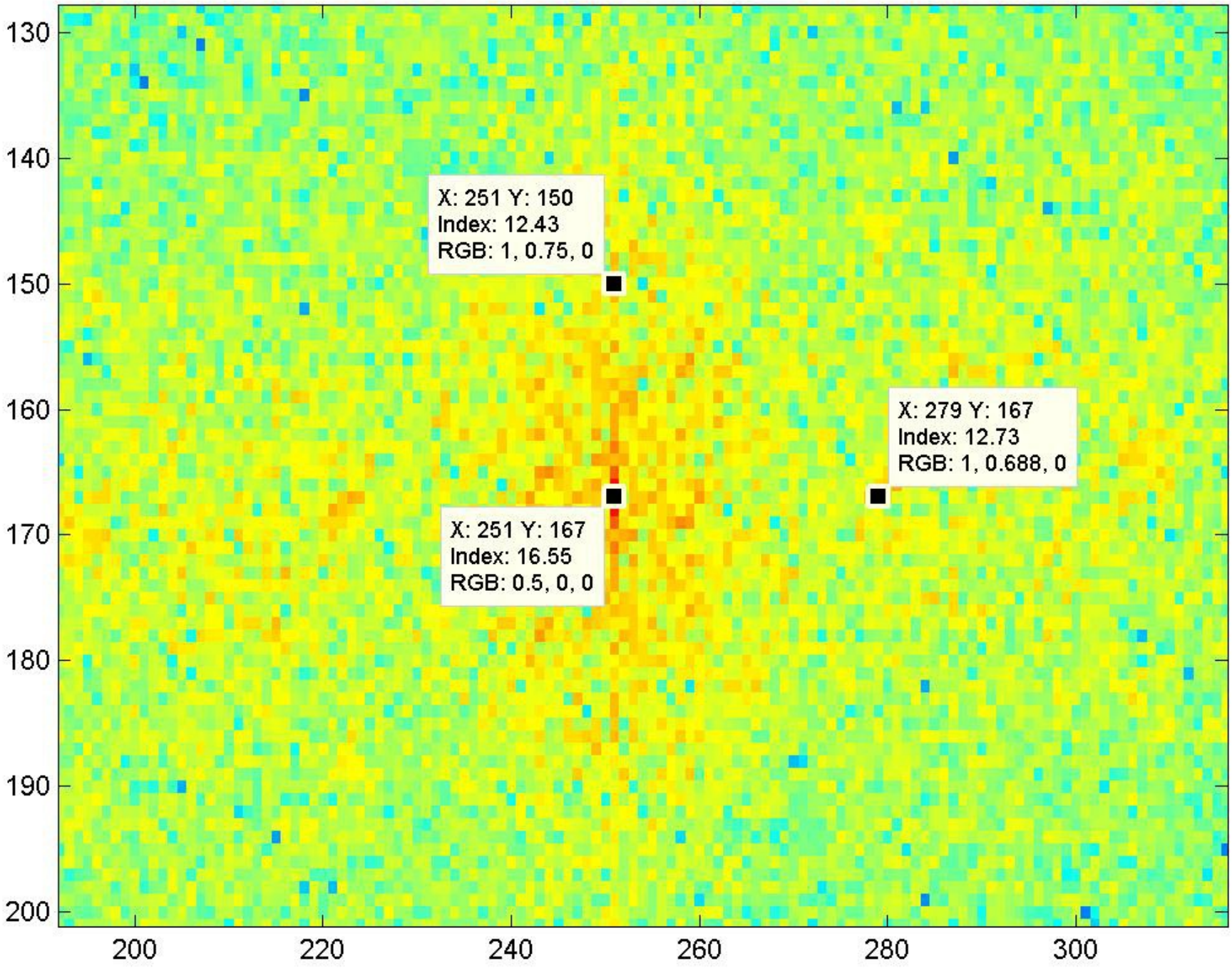



X: 516 Y: 332
Index: 14.56
RGB: 1, 0.125, 0
X: 513 Y: 341
Index: 18.29
RGB: 0.5, 0, 0
X: 525 Y: 341
Index: 14.66
RGB: 1, 0.125, 0
300
310
320
330
340
350
360
370
380
390
480
490
500
510
520
530
540
550
560

Counting using Fourier Transform (137 people)

- 12 * 9.4868 = 113

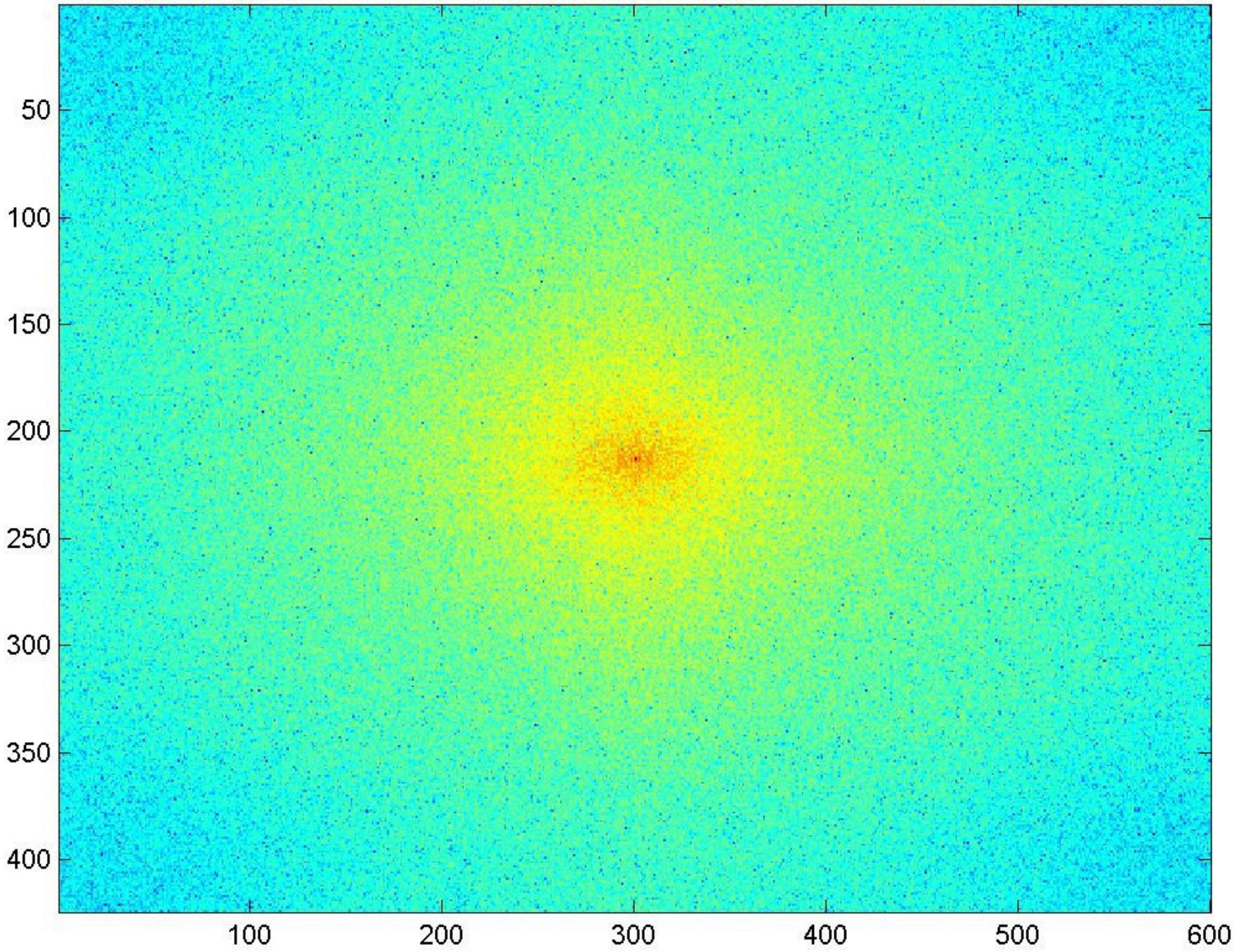
Counting using Fourier Transform (478 people)


X: 251 Y: 150
Index: 12.43
RGB: 1, 0.75, 0
X: 279 Y: 167
Index: 12.73
RGB: 1, 0.688, 0
X: 251 Y: 167
Index: 16.55
RGB: 0.5, 0, 0
130
140
150
160
170
180
190
200
200
220
240
260
280
300

Counting using Fourier Transform (478 people)

- 17 * 28 = 476

Counting using Fourier Transform (~630 people)


50
100
150
200
250
300
350
400
100
200
300
400
500
600

Counting Irregular Crowds

- Using gradient of image does not help much
- Dividing image into sub-windows helps with perspective, but does not help find meaningful peaks
- Taking horizontal and vertical strips from the image has not helped
- The center circle helps estimate the density