18.338 Eigenvalues of Random Matrices

Problem Set 1

Due Date: Wed September. 29, 2021

Reading and Notes

Read chapter *5, 9, 10* of the class notes, and comment on `nb.mit.edu` (The lecture notes and the link to `nb` can be found in Piazza: `http://piazza.com/mit/fall2021/18338`.). Please give your feedback especially high level style and where things did not make sense, in addition to spelling or technical errors.

Homework

Do at least four out of the following problems (Computational/Mathematical problems are denoted as C/M). Exercise with numbers and pages are from the class notes.

1. (C) Exercise 5.3 (p93)

2. (C) Exercise 5.6 (p94)

3. (C) Exercise 5.7 (p94)

4. (M) Exercise 9.1 (p166)

5. (M) Exercise 9.2 (p167)

6. (M) Exercise 9.3 (p167)

7. (M) Exercise 10.1 (p201)

8. (M) Exercise 10.2 (p202)

9. (M) Exercise 10.4 (p202)

10. (M) Exercise 10.5 (p202)