

PHYS 580 Homework 4 - due Wed Oct 30, 2019, in class

All questions are worth 10 points, irrespective of complexity or length. Please submit all your solutions on paper, and make sure to include the same list of basic ingredients in all your solutions as in earlier homeworks (for economy of space, the list is omitted here).

- 1) Problem 7.6 (p.194) in the Giordano-Nakanishi textbook. Also check whether you can reproduce the analytic result $\nu = 3/4$ for SAW on a 2D grid.
- 2) Problem 7.12 (p.205). If you have trouble with running time, then try first on courser grids (e.g., 50×50 for the random walk, 4×4 for the entropy, and only 100 particles).
- 3) Problem 7.15 (p.205)
- 4) Problem 7.30 (p.228.).

Note the errata pages for the textbook:

<http://www.physics.purdue.edu/~hisao/book/www/errata.pdf>

<http://www.physics.purdue.edu/~isao/book/www/errata.html>