Stat 710 2019

Chapter 4

1. Bayesian approach 1/22
2. Bayes rule and computation 1/24
   Discussion 1/25
3. Minimaxity and admissibility 1/29
4. Simultaneous estimation and shrinkage estimators 1/31
   Discussion 2/1
5. Likelihood and maximum likelihood estimator (MLE) 2/5
6. Asymptotically efficient estimation 2/7
   Discussion 2/8
7. MLE in generalized linear models (GLM) and quasi-MLE 2/12
8. Other asymptotically efficient estimators and Pseudo MLE 2/14
   Discussion 2/15

Review and Homework quiz 1 2/19

Exam 1 2/21

No discussion on 2/22

Chapter 5

9. Empirical c.d.f. and empirical likelihoods 2/26
10. Density estimation and nonparametric regression 2/28
    Discussion 3/1
11. Sample quantiles, robustness and asymptotic efficiency 3/5
12. L-estimators and M-estimators 3/7
    Discussion 3/8
13. Profile likelihoods, GEE, and GMM 3/12
14. Neyman-Pearson lemma and monotone likelihood ratio 3/14
    Discussion 3/15

Spring break 3/16-3/23

Chapter 6

15. UMP tests and unbiased tests 3/26
16. UMPU tests in exponential families 3/28

Discussion 3/29

Review and Homework quiz 2 4/2

Exam 2 4/4

No discussion on 4/5

17. Likelihood ratio and asymptotic tests 4/9
18. Asymptotic chi-square tests 4/11

Discussion 4/12

Chapter 7

19. Pivotal quantities and confidence sets 4/16
20. Inverting acceptance regions of tests, UMA and UMAU confidence sets 4/18

Discussion 4/19

21. Lengths and expected lengths of confidence intervals 4/23
22. Asymptotic confidence sets 4/25

Discussion 4/26

23. Variance estimation, replication, jackknife, and bootstrap 4/30
24. Bootstrap confidence intervals 5/2

Review and Homework quiz 3 5/3 (discussion time)

Final exam 5/7