

Homework 3

Professor: Ziyu Shao

Due: 2020/04/16 11:59am

1. Nine problems from Harvard Textbook BH (the first edition): Chapter 11, Problems 2, 4, 6, 7, 8, 14, 16, 17, 18, 19
2. **Three Server Organizations:** in the following figure, we show three data center systems with the same arriving rate λ and the same total service rate $k\mu$: FDM, M/M/1 and M/M/k. Please discuss the pros and cons of each system. Regarding the performance of average delay, which system is the best? Show your analysis and simulation results.

