Excercise section 1: Repetition of basic statistics

MVE220/MSA400

March 28, 2018

Recommended problems are from Stokastik: Sannolikhetsteori och statistikteori med tillämpningar[1].

The underlined problems will be prioritised during the exercise session 09.04.2018. Thereafter, we will look at some of the Mixed problems.

Problems that cover specific topics:

(i) Distribution function (chapter 3.3, 3.4): <u>3.3.1</u>, 3.4.1,

(ii) Independent events, conditional probabilities (chapter 2.5): 2.5.1, <u>2.5.5</u>, 2.5.6

(iii) Poisson distribution (chapter 3.6): 3.6.18, 3.6.21, 3.6.22

(iv) Poisson process (chapter 4.3): <u>4.3.1</u>, 4.3.2, 4.3.6

(v) Expected value, variance, moments (chapter 3.5): <u>3.5.1</u>

(vi) Correlation (chapter 3.8.2): 3.8.1, <u>3.8.3</u>

(vii) Point estimation (chapter 7.2): 7.2.1, 7.2.7, <u>7.2.9</u>, 7.2.17, 7.2.19

(viii) Confidence intervals (chapter 7.3): <u>7.3.1</u>, 7.3.3

Mixed problems:

1. Chapter 2: 209, 211

2. Chapter 3: 306, 315, 320

3. Chapter 4: 407

4. Chapter 7: 702, 714

References

[1] Sven Erick Alm and Tom Britton. *Stokastik: sannolikhetsteori och statistikteori med tillämpningar.* Liber, 2008.