K7 - Probability & Statistics Página 1

# Lecture 4

#### Time schedule:

12.30-14.15 : Lectures 14.30-16.15 : Exercises

### Topic:

Continuous uniform distribution, normal distribution, normal approximation of the binomial distribution,  $\chi^2$  (chi-squared) distribution, *t*-distribution, *F*-distribution

#### Literature:

[W] sections 6.1 - 6.5 (until top of page 191), 6.8, in chapter 7 from top of page 224 to top of page 226) (theorem 7.11 and corollary 7.1), section 8.7 - 8.8

#### Slides:

**PDF** 

## **Exercises:**

- 6.3, 6.10, 6.13, 6.18, 6.20, 6.22, 6.62, 6.67, in exercise 6.67 find an interval symmetric around the mean, so that the elongation is in this interval with 95% probability
- Solutions to exercises (in handwritten Danish)

## **English-Danish:**

- uniform distribution = ligefordeling *or* uniform fordeling
- $\chi^2$  (chi-squared) distribution =  $\chi^2$ -fordelingen ("ki-i-anden")

Svante