

Lecture 3

Time schedule:

12.30-14.15 : Lectures

14.30-16.15 : Exercises

Topics:

Variance of a random variables, covariance and correlation between pairs of random variables. Discrete uniform distribution, binomial distribution, hyper-geometric distribution, the Poisson distribution and the Poisson process.

Literature:

[W] sections 4.2 - 4.3 (until middle of page 129) sections 5.1 - 5.3 (until bottom of page 148), section 5.4 (until line 7 on page 156) and section 5.6.

Slides:[PDF](#)**Exercises:**

- 4.43, 4.47, 4.64, 4.65, 5.5, 5.35, 5.58, 5.71
- [Solutions to exercises](#) (in handwritten Danish)

English-Danish:

- mean = middelværdi
- expected value = forventet værdi
- variance = varians
- standard deviation = standard afvigelse eller spredning
- covariance = kovarians
- correlation = korrelation
- uniform distribution = ligefordeling *eller* uniform fordeling
- binomial distribution = binomialfordeling
- hypergeometric distribution = hypergeometrisk fordeling
- Poisson process = poisson proces
- Poisson distribution = poissonfordeling

Svante