

Oppsummering

(8)

Diskrete SF

Kont. ST

Uniform (empirisk) SF

Hypergeometrisk SF

$$h(x; N, n, k) = \frac{\binom{k}{x} \binom{N-k}{n-x}}{\binom{N}{n}}$$

$$N \gg n$$

$$\bullet p = \frac{k}{N} \downarrow$$

Binomisk SF ($q = 1-p$)

$$b(x; n, p) = \binom{n}{x} p^x q^{n-x}$$

$$\downarrow \left. \begin{array}{l} n \rightarrow \infty \\ p \rightarrow 0 \end{array} \right\} \mu = np$$

Poisson SF

$$\bullet p(x; \mu) = \frac{\mu^x}{x!} e^{-\mu}; x=0,1,\dots$$

Geometrisk SF

$$g(x; p) = p q^{x-1}; x=1,2,\dots$$

Negativ binomisk SF

$$b^*(x; k, p) = \binom{x-1}{k-1} p^k q^{x-k}$$

$x = k, k+1, \dots$
 $k \sim \alpha$

Normal ST

$$n(x; \mu, \sigma) = \frac{1}{\sqrt{2\pi}\sigma} \exp\left\{-\frac{1}{2}\left(\frac{x-\mu}{\sigma}\right)^2\right\}; -\infty < x < \infty$$

$$n(x; np, \sqrt{npq})$$

Ekspponential ST

$$\lambda e^{-\lambda x}; x \geq 0$$

Gamma ST

$$\frac{\lambda^\alpha}{\Gamma(\alpha)} x^{\alpha-1} e^{-\lambda x}; x \geq 0$$

$$(\beta = \frac{1}{\lambda})$$