

$$3.24 \quad S = \{0, 1, 2, \dots\}$$

$$P[i] = \exp(-2) \frac{2^i}{i!} \quad \text{is this valid}$$

Poisson distribution w. $\lambda = 2$

Axiom 1 always non-negative Axiom 1

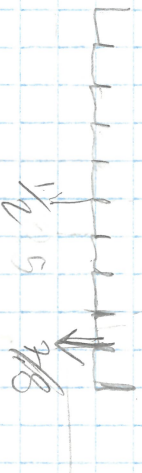
Axiom 2 sum to 1 = true Axiom 2

B subset of A

4.1 if $B \subset A$ what is $P[A|B]$

$$\begin{matrix} \text{OB} & A \\ \text{P of } A \text{ given } B \\ = 1 \end{matrix}$$

4.2 X Random in $(0, 1)$ $X \geq \frac{1}{2}$



$$= 1 - 0,875 = 0,125 \quad \frac{0,125}{0,5} = 0,25$$

$$4.16 \quad A \cap B = \emptyset \quad P[A \cap B] = P(A)P(B)$$

Mutually exclusive

not Independent

Stolker?

$$4.20 \quad S = \{1, 2, 3, 4\} \quad A = \{1, 2\} \quad B = \{1, 3\} \quad C = \{1, 4\}$$