Introduction

Different types of probability

Probability measure

Definition 0.1 (Sigma-Algebra)**.** *Let Ω be a set and $\mathcal{P}(\Omega)$ denote the power set over Ω. Then $\mathcal{F} \subseteq \mathcal{P}(\Omega)$ is called a σ-Algebra if it fullfills:*

1. $\emptyset \in \mathcal{F}$
2. $A \in \mathcal{F} \Rightarrow \overline{A} \in \mathcal{F}$
3. $(A_n)_{n\in\mathbb{N}} \subseteq \mathcal{F} \Rightarrow \cup_{n\in\mathbb{N}} A_n \in \mathcal{F}$

False confidence and validity critereon

Imprecise probability theory

Random sets

Possibility measures