

Definition 0.0.1 (measurability).

- Given a state space Ω and a σ -algebra $\mathcal{A} \subseteq 2^\Omega$, the tuple (Ω, \mathcal{A}) called a **measurable space**.

- A subset $A \subseteq \Omega$ is said to be \mathcal{A} -measurable if $A \in \mathcal{A}$. We call A an **event**.