

Definition 0.0.1. Given a stopping time τ , the σ -algebra \mathcal{F}_τ defined by

$$\mathcal{F}_\tau = \{A \in \mathcal{F}_T : \text{for all } t \in [0, T], A \cap \{\tau \leq t\} \in \mathcal{F}_t\}$$

is called the σ -algebra of events prior to τ .