

Filtered Probability

A probability space is (ω, \mathcal{F}, P) .

\mathcal{F} is subset 2^ω

$P : \mathcal{F} \rightarrow [0, 1]$

Exercise: Define sigma. Show that intersection of sigma algebra is also a sigma algebra.

A collection $\{\mathcal{F}_n\}_{n \geq 0}$ of sigma algebras is called a filtration if $\mathcal{F}_k \subset \mathcal{F}_{k+1}$ for all $k \geq 0$.