

# L110 Bayes Rule

martedì 14 marzo 2023

17:11

$$P(A \cap B) = P(A|B) P(B)$$

$$P(B \cap A) = P(B|A) P(A)$$

EQUALS

$$P(A \cap B) = P(B \cap A)$$

$$P(A|B) P(B) = P(B|A) P(A)$$

BAYES  
RULE

$$\frac{P(A|B)}{\text{POSTERIOR}} = \frac{\overset{\text{LIKELIHOOD}}{P(B|A)} \overset{\text{PRIOR}}{P(A)}}{\underset{\text{MARGINAL}}{P(B)}}$$