

Temporal Logic

Propositions

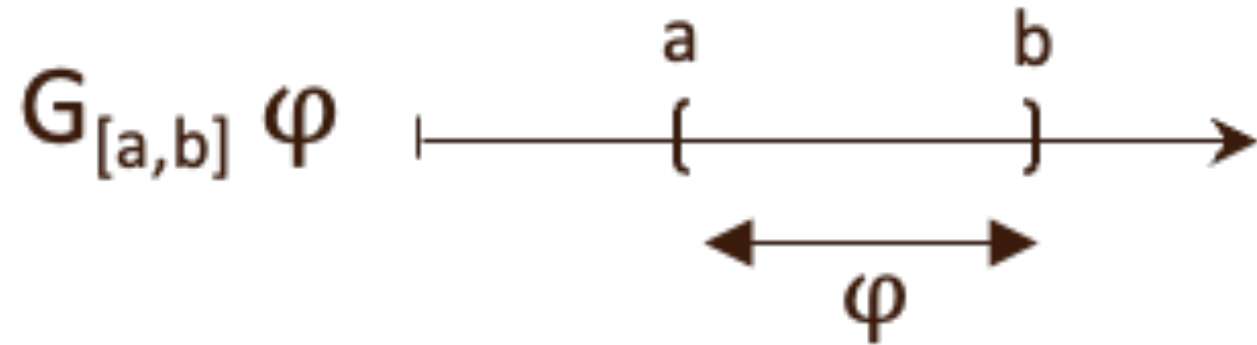
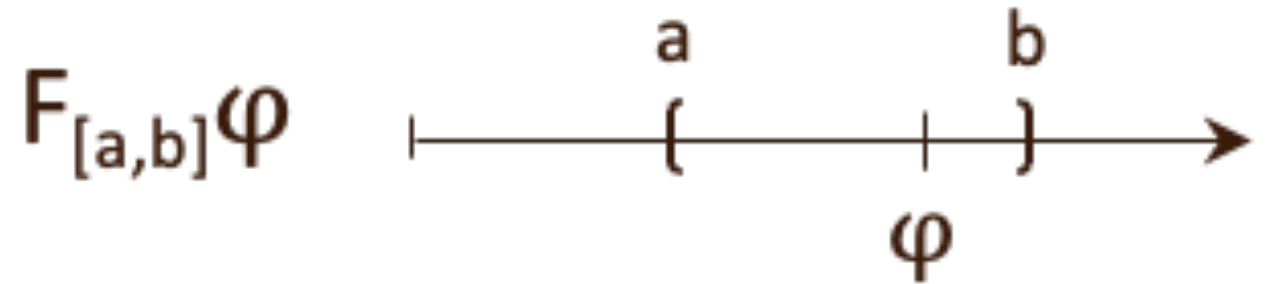
$p, q, r : \textit{True} \text{ or } \textit{False}$

(Representing system events)

Boolean Operators

\wedge (and) \vee (or) \neg (neg) \implies (implies)

Timed Temporal Operators



Always, if an obstacle is hit, then, within two seconds, turn left: $G(obs \Rightarrow F_{[0,2]} \textit{left})$



Metric Temporal Logic (MTL)

Temporal Logic

Metric Temporal Logic (MTL)

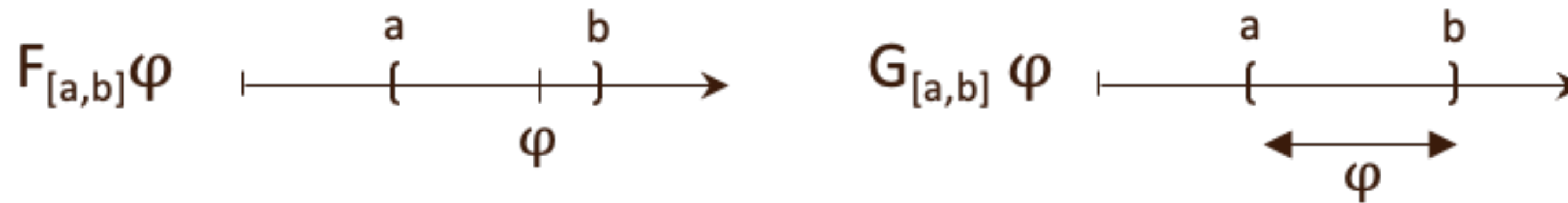
Propositions

p, q, r : *True or False*
(Representing system events)

Boolean Operators

\wedge (and) \vee (or) \neg (neg) \implies (implies)

Timed Temporal Operators



Always, if an obstacle is hit, then, **within two seconds**, turn left: $G(obs \implies F_{[0,2]} left)$

Temporal Logic

Signal Temporal Logic (STL)

Predicates

$$p > 20, q < 5.4$$

Boolean Operators

$$\wedge \text{ (and)} \quad \vee \text{ (or)} \quad \neg \text{ (neg)} \quad \implies \text{ (implies)}$$

Timed Temporal Operators

