

Key concepts

- Entailment $KB \models \alpha$
- If all statement in KB is true, α is true
- What if KB is false?
 - If $1 + 1 = 3$, dinosaurs will appear in 21st century.
 - If I could go back to 1970s, I can invent Macintosh system
- intrinsic property of KB and α , independent from algorithm

Inference algorithms

- Algorithm i : $KB \vdash_i \alpha$
- α can be inferred with knowledge KB and algorithm i
- Soundness: $KB \vdash_i \alpha \Rightarrow KB \models \alpha$
 - e.g. a nice judgement: all α can be inferred: not sound
- Completeness: $KB \vdash_i \alpha \Leftarrow KB \models \alpha$
 - e.g. say no to all sentence? Not complete.