

Reinforcement Learning of Theorem Proving

October 30, 2019

Overview

- 1 Connection Tableau
- 2 Advising with RL
 - What do we advise?
 - How do we advise?
 - Was it worth it?
- 3 Summary
- 4 Second Section

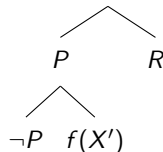
Connection Tableau

$\{P, R\} \quad \{\neg P, f(X)\} \quad \{\neg f(b), P\}$
 $\{\neg f(c), \neg P\} \quad \{P, \neg P\}$

\wedge
 $P \quad R$

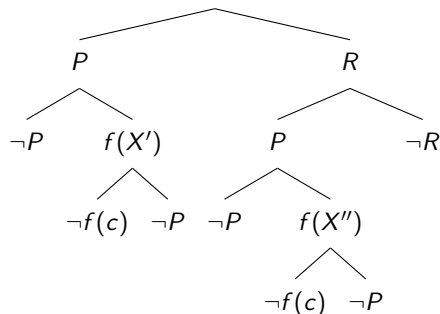
Connection Tableau

$\{P, R\} \quad \{\neg P, f(X)\} \quad \{\neg f(b), P\}$
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Connection Tableau

$\{P, R\} \quad \{\neg P, f(X)\} \quad \{\neg f(b), P\}$
 $\{\neg f(c), \neg P\} \quad \{P, \neg P\}$



Paragraphs of Text

Blocks of Highlighted Text

Block 1

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Block 2

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Block 3

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Heading

- ① Statement
- ② Explanation
- ③ Example

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Table

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table: Table caption

Theorem

Theorem (Mass–energy equivalence)

$$E = mc^2$$

Example (Theorem Slide Code)

Figure

Uncomment the code on this slide to include your own image from the same directory as the template .TeX file.

Urban (2007)

Urban, J. (2007). MaLARea: a metasystem for automated reasoning in large theories. In *Proceedings of the CADE-21 Workshop on Empirically Successful Automated Reasoning in Large Theories, Bremen, Germany, 17th July 2007*.