

Yuanzhe Yang

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## RESEARCH INTERESTS

First-order modal logic, including axiomatizations of various “bundled fragments” of first-order modal logic, alternative languages and semantics for varying-domain first-order modal logic, and related philosophical questions.

Modal logics for multi-agent systems, including simplicial semantics for epistemic logic and its generalizations, epistemic logic with updates by resolution, and axiomatizations and decidability of various kinds of coalition logics.

Other topics concerning “bundled operators” in general, including axiomatizations of logics of particular propositional modal bundled operators, general theories about the expressivity and axiomatizations of propositional modal bundled operators, and the bundled approach to deontic logic.

## EDUCATION

Peking University, Beijing, China

September 2023 — July 2026 (expected)

## Master of Arts: Philosophy

Supervisor: Yanjing Wang

Thesis Title: A General Study of Propositional Modal Bundled Operators

Peking University, Beijing, China

September 2019 — July 2023

## Bachelor of Arts: Philosophy

Supervisor: Yanjing Wang

Thesis Title: Axiomatizati

## SELECTED COURSES

## Master's Courses

- Advanced Modal Logic
  - Epistemic Logic
  - Model Theory
  - Foundations of Computability Theory
  - Social Choice Theory
  - Topics in Set Theory: Forcing
  - Topics in Philosophical Logic: Higher-Order Logic
  - Philosophical Problems of Natural Sciences:  
Causation

## **Bachelor's Courses**

- Mathematical Logic
  - First-Order Logic
  - Modal Logic
  - Axiomatic Set Theory
  - Mathematical Structure
  - Metaphysics
  - Epistemology
  - Philosophy of Language
  - Introduction to Philosophy of Science
  - Introduction to Philosophy of Biology

## **Additional Courses**

- Expressivity and Inference in Hybrid Logic  
(2022 Tsinghua Logic Summer School)
  - Fragments and Models of First-Order Arithmetic  
(2024 Fudan Logic Summer School)
  - The Ultrapower Axiom  
(2024 Fudan Logic Summer School)
  - Lectures on Set Theory and the Foundations of Mathematics  
(Lecture series at Peking University in June 2025)

## PUBLICATIONS

Journal Paper

- Yang, Yuanzhe. (2025). Boxing Some: Axiomatizations of the  $\Box\exists$ -Bundled Fragment of First-Order Modal Logic. *Journal of Philosophical Logic* 54(4): 901-933.
  - Yang, Yuanzhe. (2024). Logics of True Belief. *Notre Dame Journal of Formal Logic* 65(1): 55-80.

Conference Paper

- Yang, Yuanzhe. (2025). Impure Simplicial Complex and Term-Modal Logic with Assignment Operators. In *Proceedings of TARK 2025*: 399-416.

- Yang, Yuanzhe. (2024). A First-order Modal Logic of Strict Implication on Varying-Domain Models. In *Proceedings of AiML 2024*: 741-760.
- Yang, Yuanzhe. (2023). Knowledge-wh and False Belief Sensitivity: A Logical Study (An Extended Abstract). In *Proceedings of TARK 2023*: 527-544.

## TALKS

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- Social Friendly Coalition Logic with Restricted Coalitions. November 22, 2025, at LMAS 4, Nankai University.
- Varying-Domain First-Order Modal Logic with Fallible Assignment Operators. March 15, 2025, at Delta 23, Zhejiang University of Science & Technology.

## AWARDS

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National Scholarship	2025, Beijing, China
Beijing Outstanding Undergraduate Graduation Thesis	2023, Beijing, China
Song Wenjian Scholarship on Logic	2022, Beijing, China