

The Centre created an undergraduate Honours Program whose four courses provide students with a balanced overview of modern logic and its core applications. The course on logical foundations of mathematics was designated a national distinguished course in China, that on logic, computation and games ended in the top 5 percent of course evaluations at Tsinghua University. All four courses have led to textbooks, to be published in Chinese (Post & Telecom Press) and English (Stanford CSLI Publications).

The Centre organizes annual Summer Schools in Logic with international teachers for selected participants from all over China.



## Events

The Centre runs several regular research seminars, including a Logic Salon with outside speakers.

The Centre hosts many international conferences, such as TARK (Reasoning about Knowledge, 2021), HOLIC (History of Logic in China, 2010-) and the Asian Workshop in Philosophical Logic (2018). The Centre also coordinates the LORI conferences (Logic, Rationality and Interaction, 2007-).

Bi-annually the Centre invites distinguished Jin Yuelin Lecturers in Logic, Philosophy and Language. Lecturers so far: John Perry (Stanford, 2015), Joseph Halpern (Cornell, 2017), Michael Wooldridge (Oxford, 2019), Edward Keenan (UCLA, 2021), and Peter Gärdenfors (Lund, 2023).



In cooperation with the Institute for Interdisciplinary Information Sciences (led by Andrew Yao) and the Yau Institute for Mathematics (led by Shing-Tung Yau) the Centre has started biannual Hao Wang Lectures in Logic, Mathematics and Computation. In 2023, Hugh Woodin (Harvard) and Moshe Vardi (Rice) were the first distinguished lecturers.



## Organisation

The executive co-directors of the Centre are Johan van Benthem and Fenrong Liu, Martin Stokhof is director of graduate studies. They report to an oversight board consisting of prominent colleagues from the UvA and Tsinghua. The Centre also has associated fellows from universities worldwide.

Participating faculty at the UvA include Maria Aloni, Alexandru Baltag, Nick Bezhanishvili, Robert van Rooij, Katrin Schulz, and Sonja Smets. Participants at Tsinghua are Xiaolu Yang, Asher Jiang, Qi Feng, Chenwei Shi, Junhua Yu, Ai Yuan, Wei Wang, Hao Tang, and Mingming Liu.

As an official recognition, Tsinghua University has appointed four chaired Jin Yuelin professors: Johan van Benthem, Martin Stokhof (UvA), Jeremy Seligman (Auckland) and Dag Westerståhl (Stockholm). At the University of Amsterdam, Fenrong Liu holds the UvA-China visiting chair.



## Glimpses of the future

The six research programs of the Centre will continue strengthening their international profiles. In addition, a further focus is emerging on new perspectives in the logical foundations of Artificial Intelligence. A deeper insight into the foundations and implications of current AI is a precondition for a better understanding and responsible social embedding. Work in this area will benefit from a new fellowship program in 2023, made possible by a generous grant to the Centre by Mr. Zheng Gang. The first Zheng Gang fellows are Thomas Bolander (Copenhagen) and Ramaswamy Ramanujam (Chennai).

Another focal point is the establishment of a Joint Graduate Program. The individual joint degrees awarded so far have proven to be a very successful way of training a new generation of scholars in logic. A joint program will consolidate this.

Public outreach will continue to expand. A university-wide course is in its trial phase that highlights the central role of logic in intellectual history from Greek Antiquity until today. On-line versions of the Jin Yuelin honours courses will be made available with Chinese subtitles for a broader audience. And for young children a new logic cartoon series is being designed.



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The Tsinghua University - University of  
Amsterdam Joint Research Centre for Logic





History

Individual researchers from Tsinghua and the University of Amsterdam started to collaborate in the early 2000s. As more people joined and activities diversified, a visible international effort resulted in research, education, and outreach.

In 2013 the two university boards signed a five-year agreement establishing the Tsinghua-UvA Joint Research Centre for Logic. The cooperation was renewed in 2018 and 2023.

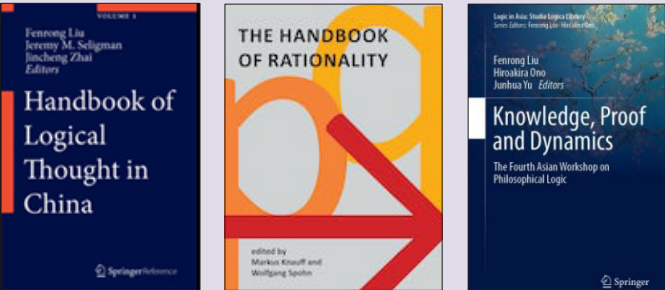


Mission

- The mission of the Centre includes a wide variety of activities from research to education and outreach:
- collaborative research projects, including joint publications and exchange visits
  - new curricula and summer schools
  - a joint PhD program in logic
  - new publication initiatives with Chinese and international publishers
  - meetings, workshops, distinguished lecture series, strategic flagship events
  - a broad spectrum of activities for public outreach

Research and Publications

The Centre has six research programs spanning a broad range in modern logic and its interfaces. Some highlights follow.



The Logic and Agency program has developed a signature effort expanding the traditional scope of logical analysis to include social informational phenomena and the interface of individual rationality and group behavior.



The Logic and Computation program has elaborated a new methodology of logic-based graph games for analyzing interactive computation, set out in a forthcoming book with Springer.

The History of Logic in China program is producing an authoritative six-volume Handbook of Logical Thought in China, with a first volume to appear in 2024.



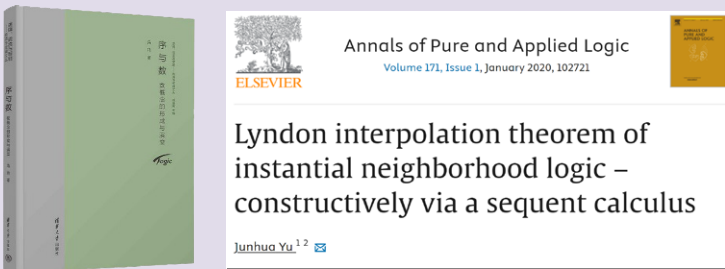
The Logic and Philosophy program focuses on topics in analytic philosophy and logic, from their early adoption in China to their relevance today. A lecture series on Wittgenstein's Tractatus was published in 2023.



The Logic and Language program has established an international conference series on current topics in the logical semantics of natural language with a special focus on contrastive studies between English and Chinese.



The Mathematical Logic program plays its main focus on contemporary proof theory and set theory, in a setting of various local and international collaborations.



- The Centre has initiated five book series:
- Handbook of Logical Thought in China, Springer
  - Logic in Asia, Springer
  - Short Textbooks in Logic, Stanford CSLI Publications
  - Logic, Language and Intelligence, Tsinghua University Press
  - Fundamentals and Frontiers of Logic, Post & Telecom Press



Education

The Centre has a joint PhD program for selected students supervised jointly at the two universities. Degrees granted so far: 2018 (Malvin Gattinger, Chenwei Shi), 2021 (Dazhu Li, Kaibo Xie), 2023 (Lei Li, Jialiing Yan, Yiyang Wang). All these students obtained university positions soon afterwards.