

## Tsinghua University - University of Amsterdam Joint Research Center for Logic

### Annual Report 2022



In 2013, Tsinghua University and the University of Amsterdam (UvA) instituted a joint research center for logic (JRC), based on a long-standing history of cooperation.



The JRC's mission is to maintain an active interface in research and education between the Institute for Logic, Language and Computation (ILLC) at the UvA, the Logic Group at Tsinghua and collaborators elsewhere in the world, in a collegial spirit of public service.

JRC Co-directors: Johan van Benthem, Fenrong Liu. Oversight Committee: Wan Junren (Tsinghua, chair), Sonja Smets (UvA), Martin Stokhof (UvA), Yde Venema (UvA), Wang Lu (Tsinghua), Andrew Yao (Tsinghua). For further participants, see our website

<http://www.tsinghualogic.net/JRC>



### STATEMENT FROM THE DIRECTORS

This is our ninth annual report on research lines, education in pure and applied logic, graduate program, publications, academic events, and people involved with the Center. Broader ambitions for our mission include pursuing interfaces between logic and current scientific and societal developments around AI as well as increasing educational and cultural outreach. In line with these goals, as new colleagues keep joining, our range of activities, in person and on-line, is expanding. Details can be found at our website. In 2023, our Center will celebrate its first ten years of existence with a special public event.

## RESEARCH PROJECTS

The JRC administers the following six programs involving UvA and Tsinghua participants plus colleagues elsewhere. Names of the coordinating project leaders are italicized.

### Logic and Agency

*Goal:* Investigating reasoning agents in complex informational social settings, with an emphasis on information dynamics, emergent attitudes, and strategic behavior in games.

*Core group:* Alexandru Baltag (ILLC), Johan van Benthem (ILLC), *Fenrong Liu* (Tsinghua), Jeremy Seligman (Auckland), Chenwei Shi (Tsinghua), Sonja Smets (ILLC).

*Key publications:*

1. J. van Benthem, L. Li, C. Shi, H. Yin: Hybrid Sabotage Modal Logic, *Journal of Logic and Computation*, 2022, online first
2. Q. Chen, C. Shi, Y. Wang: Reasoning about Dependence, Preference and Coalitional Power. CoRR abs/2209.08213, 2022
3. A. Baltag, N. Bezhanishvili, A. Özgün, S. Smets: Justified Belief, Knowledge, and the Topology of Evidence. *Synthese* 200(6), 2022

*Highlight:* After finishing his postdoc, Chenwei Shi joined the Department of Philosophy at Tsinghua as an assistant professor. At the 10-year celebration of the School of Humanities, Chenwei was invited to speak on behalf of all humanity faculty members.



### Logic and Computation

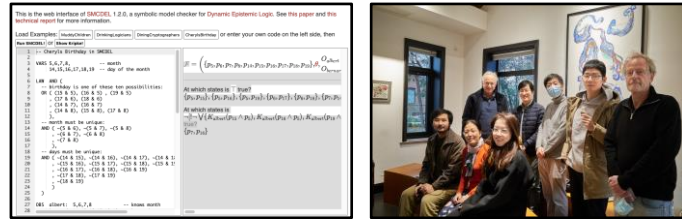
*Goal:* Extending computational foundations and tools for logics of information and agency. Exploring new connections between logic, probability, and computing paradigms in AI.

*Core group:* *Johan van Benthem* (ILLC), Beishui Liao (Hangzhou), Malvin Gattinger (Amsterdam), Thomas Icard (Stanford), Katrin Schulz (ILLC), Kaile Su (Griffith).

*Key publications:*

1. M. Gattinger: SMCDEL — An Implementation of Symbolic Model Checking for Dynamic Epistemic Logic with Binary Decision Diagrams, publicly accessible version 1.2.0, released on 22 February 2022
2. X. Lin, Q. Chen, L. Fang, Q. Guan, W. Luo, K. Su: Generalized Linear Integer Numeric Planning. *ICAPS 2022*: 241-251
3. K. Schulz, S. Smets, F. R. Velázquez-Quesada, K. Xie: Non-Strict Interventionism: The Case Of Right-Nested Counterfactuals, *Journal of Logic, Language and Information* 31 (2), 235-260, 2022

**Highlight:** Our center has started a series of small intensive exploratory meetings on interfaces of logic and AI, with colleagues from Tsinghua IIIS and Computer Science.



### History of Logic in China

**Goal:** Chinese and international researchers work on creating a history of logic in China, broadly conceived, from ancient to modern times, in a *Handbook of Logical Thought in China*, while organizing related academic events.

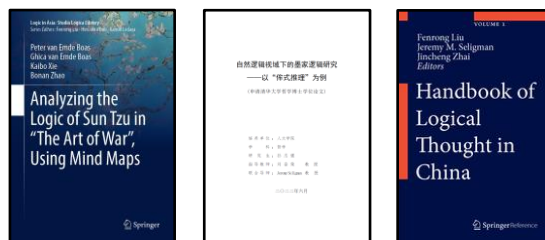
**Core group:** Peter van Emde Boas (ILLC), Chad Hansen (Hong Kong), Christoph Harbsmeier (Oslo), Fenrong Liu (Tsinghua), *Jeremy Seligman* (Auckland), Ai Yuan (Tsinghua), Jincheng Zhai (Nankai), Yinlin Guan (Tsinghua).

**Key publications:**

1. J. Zhai: The Basis and Ways of Constructing China's Contemporary Knowledge System, *Social Sciences in China*, Issue 11, 2022
2. Z. Sun: Research on the Mohist Logic from the Perspective of Natural Logic, A Case Study of “Mou Reasoning”, Ph.D Thesis, Tsinghua University
3. The 1500 page Handbook covering Chinese, Buddhist and Western thought is being translated into definitive Chinese or English versions by an active team of experts, with a view to publication in 2023

**Highlight:** Ghica & Peter van Emde Boas, Kaibo Xie and Bonan Zhao published their monograph “Analyzing the Logic of Sun Tzu in “The Art of War, using Mind Maps””,

<https://link.springer.com/book/10.1007/978-981-19-6250-9>



### Logic and Philosophy

**Goal:** Exploring new interfaces between logic and a range of issues in philosophy of language, philosophy of mind, epistemology, metaphysics, and practical philosophy.

**Core group:** Asher Jiang (Tsinghua), Fengkui Ju (BNU), Xinwen Liu (CASS), John Perry (Stanford), Chenwei Shi (Tsinghua), *Martin Stokhof* (ILLC), Hao Tang (Tsinghua), Lu Wang (Tsinghua), Wei Wang (Tsinghua).

**Key publications:**

1. Y. Wang, Martin Stokhof: A Relational Perspective on Collective Agency, *Philosophies* 7 (3):63, 2022
2. H. Tang: “Bodily Self-Knowledge as a Special Form of Perception”, *Disputatio. Philosophical Research Bulletin*, Vol. 11, No. 20, pp. 71-99, 2022

**Highlights:** Selected works of Martin Stokhof were translated into Chinese and published under the title “Approaching Meaning: Formal Semantics and Wittgenstein” at the Tsinghua University Press. Also, Johan van Benthem was elected as an Honorary Member of the Académie Internationale de Philosophie des Sciences.

**Logic and Language**

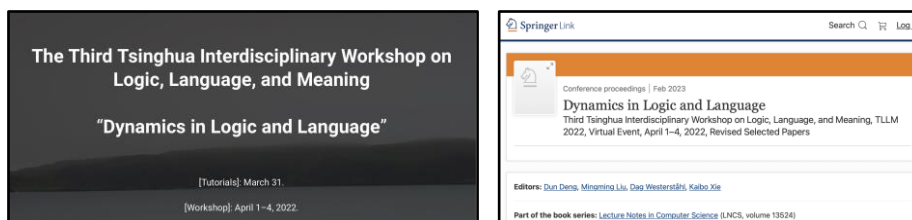
**Goal:** Syntax, semantics and pragmatics of natural language investigated by logical methods, with a special interest in comparative perspectives on the Chinese language.

**Core group:** Maria Aloni (ILLC), Dun Deng (Tsinghua), Mingming Liu (Tsinghua), Stanley Peters (Stanford), Martin Stokhof (ILLC), Frank Veltman (ILLC), Dag Westerståhl (Stockholm).

**Key publications:**

1. D. Deng, R. Huang: The Function Word “Suo” in Jieyang Min Dialect: Fact Description and Theoretical Implication, *Contemporary Linguistics*, No. 5, 673-689, 2022
2. S. Peters, D. Westerståhl: The Semantics of Exceptives, *Linguistics & Philosophy*, 2022

**Highlight:** The Third Tsinghua TLLM Workshop on “Logic, Language and Meaning” organized by Dag Westerståhl, Mingming Liu, Dun Deng and Kaibo Xie, with the theme ‘Dynamics in Language and Logic’ took place in April 2022. Proceedings will appear soon.

**Mathematical Logic**

**Goal:** Current research lines include logics with provability semantics, proof theory for non-classical logics, set theory, and philosophy of mathematics and the sciences.

**Core group:** Nick Bezhanishvili (ILLC), Melvin Fitting (CUNY), Junhua Yu (Tsinghua), Qi Feng (Tsinghua).

### Key publications:

1. Guram Bezhanishvili, Nick Bezhanishvili, Jim de Groot: A Coalgebraic Approach to Dualities for Neighborhood Frames. *Log. Methods Comput. Sci.* 18(3), 2022
2. Qi Feng, *Logic and Discovery*, Science Press, 2022



## APPOINTMENTS

The two founding universities have created two special positions supporting the JRC.

- *Amsterdam – China Logic Chair*, 2014 – 2024, held by Fenrong Liu.
- *Jin Yuelin Chair Distinguished Professorship*, 2017– The first chair holders Johan van Benthem, Martin Stokhof, Dag Westerståhl, and Jeremy Seligman design and teach new courses, supervise students, and carry out research at Tsinghua.



## EDUCATION

**Graduate program** The JRC runs a selective graduate program with Ph.D. students spending time co-supervised at both sites. An official joint degree format has started in 2022, selected students receive a degree from both Tsinghua University and the UvA.

*Former students:* Malvin Gattinger (Ph.D. 2018), Chenwei Shi (Ph.D. 2018), Xiaoxuan Fu (Ph.D. 2020), Kaibo Xie (Ph.D. 2020), Dazhu Li (first official joint Ph.D. degree, 2021).

*Current students in the program:* Yiyan Wang (collective agency); Jialiang Yan (formal semantics); Lei Li (game logics); Zhenkun Hu (history of logic); Qian Chen (tense Logic); Qingyu He (causality); Penghao Du (social network logic).

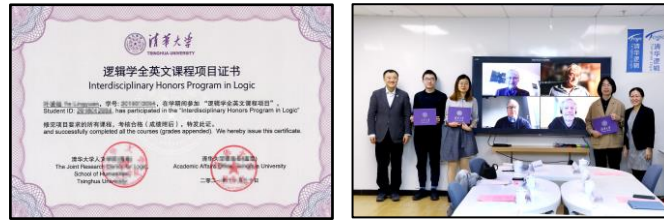
**Seminars** The JRC organized several advanced seminars and colloquia at Tsinghua on broad themes in logic.

- Feb-Jun, 2022            Social Epistemic Logic
- Mar, 2022                What Makes Logic (un)Decidable?
- Sep-Dec, 2022         Frontiers in Logic

**Undergraduate teaching initiative: the Tsinghua Logic Course** A newly designed series of four interlocking interdisciplinary courses in logic has started at Tsinghua. New textbooks are written and tested, with two close to publication in English and Chinese.

- *Logic, Language and Philosophy*, Fenrong Liu and Martin Stokhof
- *Mathematical Foundations of Logic*, meta-theory of FOL, Dag Westerståhl
- *Modal Logics and their Applications*, introduction to modal, temporal, and epistemic logics with an emphasis on philosophical analysis, Jeremy Seligman
- *Logic, Computation and Games*, advanced introduction to dynamic epistemic logic, games and probability, including research topics, Johan van Benthem

This year's courses were again partly online, and are open to students from universities that have agreements with Tsinghua. The first three students who successfully finished all courses, received the starting certificates for this complete honor's program. By the end of 2022, 14 students on campus received their honors' certificates.



***Tsinghua Logic Summer School*** The JRC held its second summer logic school, June 27th – July 3<sup>rd</sup>, 2022, with the following two courses for a selected group of students:

Phokion G. Kolaitis (UC Santa Cruz & IBM Research):

*Logic, Data and Incomplete Information*

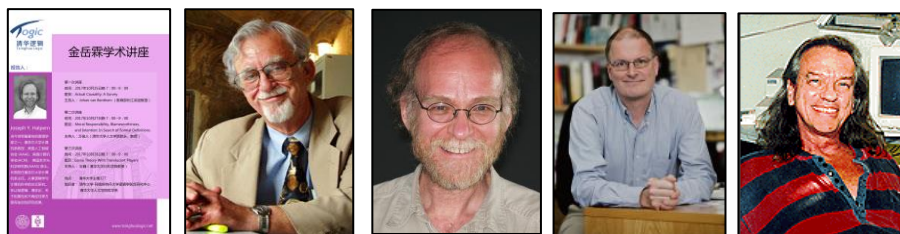
Patrick Blackburn (Roskilde University):

*Expressivity and Inference in Hybrid Logic*



### JIN YUE LIN LECTURES

The JRC hosts a distinguished lecture series honoring Jin Yuelin, the founder of Tsinghua's philosophy department and a pioneer in introducing modern logic to China. Our Jin Yuelin lecturers so far: John Perry, Stanford (2015), Joseph Halpern, Cornell (2017), Michael Wooldridge, Oxford (2019). The 2021 Jin Yuelin lectures were delivered by Professor Ed Keenan (linguistics, UCLA Los Angeles) with the titles "A Logician Looks at Natural Language" and "Natural Language Contributions to Logic". The next lecture will be in 2023.



## OTHER SCIENTIFIC EVENTS

### *Workshops and conferences*

1. 2022 January 15-17: HOLIC Workshop 2022 “Textual Analysis as the Basis for Understanding Chinese Logical Thought”
2. 2022 March 16-25 [tutorials]: What Makes Logic (un)Decidable?
3. 2022 March 31 [tutorials]: Dynamics in Language and Dynamics in Logic
4. 2022 April 1-4: Third Tsinghua Interdisciplinary Workshop on Logic, Language, and Meaning:
5. 2022 April 21 [workshop] Legacy of the Tsinghua Logic School
6. 2022 May 25 [workshop]: Meeting of the Minds: Logicians and Linguists
7. 2022 Nov 26 [workshop]: Logic and Games
8. 2022 Nov 29 [workshop]: Dependence and Causality
9. 2022 Dec 11 [workshop]: Logic on the Road

***Tsinghua Logic Salon*** Initiated and hosted by students and researchers at the JRC, the Logic Salon promotes interaction between researchers, students and invited visitors.

- 2022 Feb 24 Chong Chi Tat (Singapore): Nonstandard Models of Arithmetic  
 2022 Mar 03 Zhiguang Zhao (Taishan): Algebraic Correspondence Theory: A Duality-Theoretic Perspective  
 2022 Mar 10 Zhen Liang (Guizhou): Towards Axiomatisation of Social Epistemic Logic  
 2022 Mar 17 Wei Wang (Tsinghua): Scientific Laws and Causality  
 2022 Mar 24 Hu Liu (Sun Yat-sen): A Formal Theory of Public Opinion  
 2022 Mar 31 Jouko Väänänen (Helsinki): Dependence logic: Some recent developments  
 2022 Apr 07 Yuhao Wang (Tsinghua, IIS): Long-term Causal Inference Under Persistent Confounding via Data Combination  
 2022 Apr 14 Valentin Goranko (Stockholm): Logic-based Strategic Reasoning in Social Context  
 2022 Apr 29 Alexandru Baltag (Amsterdam): The Topology of Surprise  
 2022 May 07 Adam Björndahl (Carnegie Mellon) Knowledge Second  
 2022 May 26 Dag Westerståhl (Stockholm) Updates on Carnap’s Problem  
 2022 Sep 15 Changpu Sun (China Academy of Engineering Physics): The Objective Interpretation of Quantum Mechanics and Popper’s Philosophy  
 2022 Sep 22 Zhaokuan Hao (Fudan): Concept and Definability  
 2022 Sep 29 Heinrich Wansing (Ruhr Uni. Bochum): Beyond Paraconsistency – A plea for a radical breach with the Aristotelean orthodoxy in logic  
 2022 Oct 13 Sujata Ghosh (ISI, Chennai): What Drives People’s Choices in Turn-taking Games?  
 2022 Oct 20 Andreas Herzig (Toulouse): On Logics of Knowledge and Belief  
 2022 Oct 27 Xiao Liu (Tsinghua, Economics): The Consistency of Rationality Measurement  
 2022 Nov 03 Yi Wang (Sun Yat-sen): Research on Social Network Logic outside the Epistemic Perspective  
 2022 Nov 10 Katsuhiko Sano (Hokkaido): Analytic Cut and Mints’ Symmetric Interpolation Method for Bi-intuitionistic Tense Logic  
 2022 Dec 01 Rineke Verbrugge (Groningen): Zero-one Laws for Propositional Provability Logics GL, S4, K4  
 2022 Dec 04 Hanti Lin (UC, Davis): The Hopelessness of AGM Belief Revision and the Trinity of Statistics  
 2022 Dec 15 Yong Cheng (Wuhan): The Limit of the First Incompleteness Theorem  
 2022 Dec 22 Minghui Ma (Sun Yat-sen): Negative Translations in Intuitionistic Tense Logics

***Qing Cha Hui*** To promote interdisciplinary interactions between teachers and students on campus, since 2020, the informal Qing Cha Hui (清茶会, Clear/Tsing Tea Session) is held, with the motto “know thyself and let others know you better”. Speakers in 2022:

Li Lei, Wang Yiyang, Yan Jialiang, Liu Yuqi, Chu Mingliang, Hu Zhenkun, Chen Qian, Du Penghao, He Qingyu, Fu Xiaoxuan (China Uni. of Political Science and Law), Guan Yinlin, Li Dazhu (CAS), Cheng Fengxiang, Xing Kun (Anyang Uni.), Zhang Tianwei (TUW), Jing Xiaoxin (Beijing Capital Uni.), Ye Lingyuan, Yin Haoxuan, Tong Haotian.

***Tsinghua Logic Blog*** A new platform for fast posting of thoughts and informal notes concerning logical research in a broad context, to create a lively environment for learning and communication. The blog is maintained by Lingyuan Ye.



## PUBLICATIONS

The following publications by members and associates demonstrate the JRC's activities.

### Books

Wei Wang, *Introduction to Branch Philosophy of Science*, Science Press, Beijing, 2022

Qi Feng, *Logic and Discovery*, Science Press, Beijing, 2022

M. Stokhof and H. Tang, eds., *Wittgenstein at 100*. A collection of essays on Ludwig Wittgenstein's landmark "Tractatus Logico-Philosophicus" at the 100th anniversary of its publication. To appear in 2023

### Articles

1. A. Baltag, S. Smets: Reasoning about Quantum Information: An Overview of Quantum Dynamic Logic. *Applied Sciences* (Special Issue on Quantum Logics), Vol.12 (9), 44-58, 2022
2. A. Baltag, N. Bezhanishvili, A. Ozgun, S. Smets: Justified Belief, Knowledge, and the Topology of Evidence. *Synthese* 200(6), 2022
3. J. van Benthem, The Logic of Conditionals on Outback Trails, *Logic Journal of the IGPL*, <https://doi.org/10.1093/jigpal/jzac064>
4. J. van Benthem, Logic and Probability. Encounters with the van Lambalgen World, in K. Stenning & M. Stokhof, eds., *Festschrift for Michiel van Lambalgen*, Amsterdam
5. J. van Benthem, B. ten Cate, R. Koudijs, Local Dependence and Guarding, *Proceedings Advances in Modal Logic 2022*
6. J. van Benthem, K. Mierzewski, F. Zaffora Blando: The Modal Logic of Stepwise Removal. *Rev. Symb. Log.* 15(1): 36-63, 2022
7. J. van Benthem, L. Li, C. Shi, H. Yin: Hybrid Sabotage Modal Logic, *Journal of Logic and Computation*, 2022, online first
8. Q. Chen, C. Shi, Y. Wang: Reasoning about Dependence, Preference and Coalitional Power. CoRR abs/2209.08213, 2022
9. Q. Chen, M. Ma: Tabularity and Post-Completeness in Tense Logic *Review of Symbolic Logic*:1-18, 2022
10. D. Deng, R. Huang: The Function Word "Suo" in Jieyang Min Dialect: Fact Description and Theoretical Implication, *Contemporary Linguistics*, No. 5, 673-689, 2022
11. D. Deng: On AABB Fragments in Modern Chinese as Compound Words rather than Reduplications, *World Chinese Teaching*, Issue 1, 65-77, 2022 [in Chinese]
12. H. Chi, B. Liao: A Quantitative Argumentation-based Automated eXplainable Decision System for Fake News Detection on Social Media, *Knowledge-Based Systems*, 2022
13. H. van Ditmarsch, M. Gattinger, R. Ramezani: Everyone Knows that Everyone Knows: Gossip Protocols for Super Experts. <https://arxiv.org/abs/2011.13203>, to appear in *Studia Logica*.
14. H. van Ditmarsch, M. Gattinger: The Limits to Gossip: Second-order Shared Knowledge of all Secrets is Unsatisfiable. *Proceedings of WoLLIC 2022*
15. M. Gattinger: A Verified Proof of Craig Interpolation for Basic Modal Logic via Tableaux in Lean. Short presentation at *Advances in Modal Logic 2022*
16. M. Gattinger: SMCDEL — An Implementation of Symbolic Model Checking for Dynamic Epistemic Logic with Binary Decision Diagrams, Version 1.2.0, released on 22 February 2022
17. H. Gui: Jin Yuelin's Response to Skepticism——From the Perspectives of "Things" and "Reason", *Studies in Dialectics of Nature*, No. 3, 2022 [in Chinese]
18. G. Huang, X. Luo, S. Wang, T. Gu, K. Su: Hippocampus-heuristic Character Recognition Network for Zero-shot Learning in Chinese Character Recognition. *Pattern Recognition*. 130: 108818, 2022
19. X. Lin, Q. Chen, L. Fang, Q. Guan, W. Luo, K. Su: Generalized Linear Integer Numeric Planning. *ICAPS 2022*: 241-251



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20. C. Li, B. Liao: Integrating Individual Preferences into Collective Argumentation, *Journal of Logic and Computation*, to appear.
  21. B. Liao: On Interdisciplinary Studies of a New Generation of Artificial Intelligence and Logic, *Social Sciences in China*. Volume: 43. Issue: 3. 2022
  22. B. Liao, R. Markovich and Y. N. Wang, eds. *Proc's of the Second International Workshop on Logics for New-Generation Artificial Intelligence*, College Publications, 2022
  23. F. Liu, D. Li: Ten-Year History of Social Network Logics in China, *Asian Studies*, 10(2), 121–146, 2022
  24. J. Luo, B. Liao, D. Gabbay: Value-based Practical Reasoning: Modal Logic + Argumentation, *COMMA 2022*
  25. G. Primiero, M. Slavkovic, S. Smets (eds.) Special Issue. Introduction 'Netreason: Reasoning about Social Networks', *Journal of Logic and Computation* 32 (6), 1015-1016, 2022
  26. K. Schulz, S. Smets, F. R. Velázquez-Quesada, K. Xie: Non-strict Interventionism: The Case Of Right-Nested Counterfactuals, *Journal of Logic, Language and Information* 31 (2), 235-260, 2022
  27. J. Stam, M. Stokhof, M. van Lambalgen, Naturalising mathematics? A Wittgensteinian perspective, *Philosophies*, 2022, 7(4), 85
  28. M. Stokhof, Philosophy as change, in: Zhongjiang Wang (ed), *Philosophy in China Today*, Shengda University Press, Zhengzhou, 2022, 86-111 [in Chinese]
  29. M. Stokhof, Episodic problems, in: K. Stenning and M. Stokhof (eds), *Rules, Regularities, Randomness. Festschrift for Michiel van Lambalgen*, ILLC, Amsterdam, 2022, 129-135
  30. M. Stokhof, The Affordances of Art: the Role of the Individual and the Case of Literature, *Adaptive Behavior*, 30(6), 2022, 509-511
  31. M. Stokhof, Inleiding, in: L. Wittgenstein, *Tractatus Logico-Philosophicus*, vertaald door Peter Huijzer en Jan Sietsma, Octavo, Amsterdam, 7-30 [in Dutch]
  32. M. Stokhof, Interview with Robert van Altena about Wittgenstein's *Tractatus*. Radio Broadcast in the series *Springvossen*, March 14, 2022, *AmsterdamFM* [in Dutch]
  33. H. Tang: "Bodily Self-Knowledge as a Special Form of Perception" Disputatio. *Philosophical Research Bulletin*, Vol. 11, No. 20, pp. 71-99, 2022
  34. W. Wang, J. Zheng: The Ontology and Methodological Fate of Knowledge——A Brief Discussion on the Research Program of the New HPS, *Philosophical Analysis*, 2022 (2), pp. 133-143 [in Chinese]
  35. W. Wang: Kuhn and Contemporary Philosophy of Science, *Studies in Dialectics of Nature*, 2022 (10), pp. 5-10 [in Chinese]
  36. Y. Wang, Martin Stokhof: A Relational Perspective on Collective Agency, *Philosophies* 7 (3):63, 2022
  37. Y. Wang, Y. Wei, J. Seligman: Quantifier-free Epistemic Term-modal Logic with Assignment Operator. *Ann. Pure Appl. Log.* 173(3): 103071, 2022
  38. S. Peters, D. Westerståhl: The Semantics of Exceptives, *Linguistics & Philosophy*, 2022
  39. J. Yan: The Overtone of Monotonicity under Desire. Student Session, ESSILI 2022
  40. K. Xie, J. Yan: A Logic for Desire Based on Causal Inference. *Journal of Logic and Computation*, 2022
  41. A. Yuan: Rhetorical Questions in the *Daodejing*: Argument Construction, Dialogical Insertion, and Sentimental Expression, *Religions* 2022, 13, 252
  42. A. Yuan: The Development and Practice of "Silence" in Early China from a Cross-Cultural Perspective——From Yanzi Chunqiu, *Chuanshan Xuekan*, No.141, 99-116, 2022 [in Chinese]
  43. A. Yuan: Global Perspective: Zhu Zi's "Classic Interpretation" and "Addition and Deletion of Function Words", *Legein Monthly*, Vol. 47, Issue 7, 2022 [in Chinese]
  44. J. Zhai: The Basis and Ways of Constructing China's Contemporary Knowledge System, *Social Sciences in China*, Issue 11, 2022 [in Chinese]
  45. J. Zhai: On the Ideological Basis of Chinese Logic and the New Construction of Knowledge System, *Nankai Journal*, Issue 3, 2022 [in Chinese]
  46. J. Zhai, Y. Liu: Rethinking on the Study of Chinese Logic under the Background of the Introduction of Western Logic, *Philosophy Trends*, Issue 3, 2022 [in Chinese]

## DISSEMINATION

**Logic in Asia** The JRC hosts a new Springer book series "*Logic in Asia: Studia Logica Library*", a new research platform for monographs by researchers in Asia and worldwide. Editors-in-chief: Fenrong Liu, Hiroakira Ono, and Kamal Lodaya. New title this year:

Peter van Emde Boas, Ghica van Emde Boas, Kaibo Xie, Bonan Zhao:  
*Analyzing the Logic of Sun Tzu in "The Art of War Using Mind Maps,"* 2022

**New Chinese book series: Logic, Language and Intelligence** The JRC also started a Chinese language series “*Logic, Language and Intelligence*” with Tsinghua University Press. Editor-in-Chief: Fenrong Liu. In 2022, the second volume appeared:

Martin Stokhof, Yibin Dai transl., *Approaching Meaning* (走向意义),  
Tsinghua University Press: Beijing, 2022

### Celebrating the Tsinghua Logic Tradition

On the occasion of Tsinghua University’s 110<sup>th</sup> anniversary in April 2022, a workshop was held to discuss the Tsinghua logic tradition, the goals of the early founding logicians, and plans for the future. Speakers: Yang Disheng (philosophy graduate 1952), Jialong Zhang (CASS), Taotao Xing (Peking), and Jan Vrhovski (Ljubljana). Tsinghua President Wang Xiqin attended and gave a speech expressing high expectations for logic.



### World Logic Day

On the UNESCO World Logic Day, Jan 14 2022, our center organized a Workshop “Textual Analysis as the Basis for Understanding Chinese Logical Thought” with keynote speakers Christof Harbsmeier (Oslo), Dirk Meyer (Oxford), Joachim Gentz (Edinburgh), Fenrong Liu (Tsinghua), Jana Rošker (Ljubljana) and Yiu-ming Fung (Tunghai). It attracted about 150 participants worldwide with animated discussions throughout the event.



### The JRC in the Media

The *Tsinghua Logic Wechat platform* currently has over 6000 followers. We announce center events, international conferences and news of the international logic community.



### External Support

In 2022, our Center received a substantial long-term donation from Mr. Zheng Gang. We will use these annual funds for new innovative logic courses and a fellowship program bringing international colleagues to Tsinghua to work with our staff and students.