

# Tatsuya Terao

DOCTORAL STUDENT

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## Research Interests

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- Theoretical Computer Science.

## Education

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### Kyoto University

BACHELOR OF SCIENCE

- Faculty of Science, Division of Physics

Kyoto, Japan

April 1, 2018 - March 31, 2022

### Kyoto University

MASTER OF SCIENCE

- Advisor: Prof. Yusuke Kobayashi

Kyoto, Japan

April 1, 2022 - March 31, 2024

### Kyoto University

DOCTOR OF SCIENCE

- Advisor: Prof. Yusuke Kobayashi

Kyoto, Japan

April 1, 2024 - present

## Professional Experience

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2024-2027 Research Fellowships for Young Scientists (DC1), Japan Society for the Promotion of Science

## Publications

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Authors are listed alphabetically. Exceptions are marked with †.

1. Yusuke Kobayashi and Tatsuya Terao: One-Face Shortest Disjoint Paths with a Deviation Terminal,  
In Proceedings of the 33rd International Symposium on Algorithms and Computation (**ISAAC 2022**), 47:1–47:15.  
[doi:10.4230/LIPIcs.ISAAC.2022.47](#)
2. Tatsuya Terao: Faster Matroid Partition Algorithms,  
In ACM Transactions on Algorithms (**TALG**), Volume 21, Issue 2, 2025.  
[doi:10.1145/3707208](#)  
A preliminary version appeared in Proceedings of the 50th EATCS International Colloquium on Automata, Languages and Programming (**ICALP 2023**), 104:1–104:20.  
[doi:10.4230/LIPIcs.ICALP.2023.104](#)
3. Yusuke Kobayashi and Tatsuya Terao: Subquadratic Submodular Maximization with a General Matroid Constraint,  
In Proceedings of the 51st EATCS International Colloquium on Automata, Languages and Programming (**ICALP 2024**), 100:1–100:19.  
[doi:10.4230/LIPIcs.ICALP.2024.100](#)
4. Tatsuya Terao and Ryuhei Mori: Parameterized Quantum Query Algorithms for Graph Problems †,  
In Proceedings of the 32nd Annual European Symposium on Algorithms (**ESA 2024**), 99:1–99:16.  
[doi:10.4230/LIPIcs.ESA.2024.99](#)
5. Tatsuya Terao: Deterministic  $(2/3 - \epsilon)$ -Approximation of Matroid Intersection Using Nearly-Linear Independence-Oracle Queries,  
To appear in Proceedings of the 19th Algorithms and Data Structures Symposium (**WADS 2025**)

## Presentations

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- One-Face Shortest Disjoint Paths with a Deviation Terminal.
  - ISAAC 2022, Seoul, Korea, Dec. 20, 2022.

- Faster Matroid Partition Algorithms.
  - ICALP 2023, Paderborn, Germany, July 14, 2023.
  - 13th Hungarian-Japanese Symposium on Discrete Mathematics and Its Applications, Tokyo, Japan, May 26, 2025.
- Subquadratic Submodular Maximization with a General Matroid Constraint.
  - ICALP 2024, Tallinn, Estonia, July 9, 2024.
- Parameterized Quantum Query Algorithms for Graph Problems.
  - ESA 2024, Egham, United Kingdom, Sep. 4, 2024.
- Deterministic  $(2/3 - \epsilon)$ -Approximation of Matroid Intersection Using Nearly-Linear Independence-Oracle Queries
  - WADS 2025, Toronto, Canada, Aug. , 2025.

## Services

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### PEER REVIEW

Conference external referee for RANDOM 2025.