Keita Nakamura

Department of Information Sciences, Graduate School of Science and Technology,
Tokyo University of Science
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1. Education

Tokyo University of Science (Chiba, Japan) *Apr 2024 – Present*
Doctoral Program in Information Sciences, Graduate School of Science and Technology.

Yokohama City University (Yokohama, Japan) *Jun 2023 – Mar 2024*
Research Student in Medical Science, Graduate School of Medicine.

Tokyo University of Science (Chiba, Japan) *Apr 2021 – Mar 2023*
Master of Science in Information Sciences, Graduate School of Science and Technology.

Tokyo University of Science (Chiba, Japan) *Apr 2017 – Mar 2021*
Bachelor of Science in Information Sciences, Faculty of Science and Technology.

Tokyo Metropolitan Kunitachi Senior High School (Tokyo, Japan) *Graduated Mar 2017*

2. Teaching Experience

Teaching Assistant, Tokyo University of Science *Apr 2025 – Present*
Probability Theory 1 and its Exercises, Mathematics for Information Sciences 2B and its Exercises

Teaching Assistant, Tokyo University of Science *Oct 2024 – Mar 2025*
Statistics 1 and its Exercises, Mathematics for Information Sciences 2A and its Exercises

Teaching Assistant, Tokyo University of Science *Apr 2024 – Sep 2024*
Probability Theory 1 and its Exercises, Mathematics for Information Sciences 2B and its Exercises

Learning Support Center, Tokyo University of Science *Apr 2022 – Mar 2023*
Academic support and tutoring for undergraduate students in mathematics.

3. Research

Tokyo University of Science (Chiba, Japan) *Apr 2024 – Present*
Doctoral Research, under Prof. Kouji Tahata
Graduate School of Science and Technology, Department of Information Sciences

Yokohama City University (Yokohama, Japan) *Jun 2023 – Mar 2024*
Research Student, Graduate School of Medicine

Tokyo University of Science (Chiba, Japan) *Apr 2021 – Mar 2023*
Master's Thesis Research, under Prof. Kouji Tahata
Graduate School of Science and Technology, Department of Information Sciences

4. Awards and Honors

応用統計学会優秀発表賞 *2024 年 5 月*
発表題目：「Aitchison 幾何学に基づく正方分割表の対称性と歪対称性」, 応用統計学会, 九州大学.

5. Publications and Presentations

5.1 Publications

K. Nakamura, T. Nakagawa, K. Tahata: "Quasi-Symmetry and Geometric Marginal Homogeneity: A Simplicial Approach to Square Contingency Tables", *Information Geometry*, 2025. DOI: 10.1007/s41884-025-00176-1

K. Nakamura, T. Nakagawa, K. Tahata: "Symmetry of Square Contingency Tables Using Simplicial Geometry", *Austrian Journal of Statistics*, Vol. 53, No. 4, pp. 85-98, 2024. DOI: 10.17713/ajs.v53i4.1845

5.2 Conference Presentations

5.2.1 International Conferences

[1] K. Nakamura, T. Nakagawa, K. Tahata: "Geometric Marginal Homogeneity in Compositional Tables Based on Simplicial Geometry", *Further Developments of Information Geometry*, The University of Tokyo, Tokyo, Japan, 2025 (Poster session).

[2] K. Nakamura, T. Nakagawa, K. Tahata: "Orthogonal decomposition of probability tables with Aitchison geometry for symmetry assessment", *CFE-CMStatistics*, King's College London, London, UK, 2024.

5.2.2 Domestic Conferences

[1] 中村慶太, 中川智之, 田畑耕治:「Aitchison 幾何に基づく分割表の対称性について」, *RIMS* 共同研究（グループ型 *A*）統計モデルとその有効性, 京都大学数理解析研究所, 2025 年 3 月.

[2] 中村慶太, 中川智之, 田畑耕治:「Aitchison 幾何による交差分類表の準対称性解析」, 日本分類学会, 名古屋工業大学, 2024 年 11 月.

[3] 中村慶太, 中川智之, 田畑耕治:「Aitchison 幾何学に基づく正方分割表の対称性と歪対称性」, 応用統計学会, 九州大学, 2024 年 5 月. **(Best Presentation Award)**

[4] 中村慶太, 中川智之, 田畑耕治:「Aitchison 幾何を用いた正方分割表の準対称性と幾何周辺同等性」, 日本数学会, 東北大学, 2023 年 9 月.

[5] 中村慶太, 中川智之, 田畑耕治:「Aitchison 幾何を用いた正方分割表の対称性」, 日本数学会, 中央大学, 2023 年 3 月.

5.3 Publications without Peer Review

[1] 中村慶太, 中川智之, 田畑耕治:「Aitchison 幾何に基づく分割表の対称性について」, *RIMS* 講究録, Vol. 2318, pp. 1-12, 2025. [PDF]

6. Research Grants and Funding

[1] **JST 次世代研究者挑戦的研究プログラム（SPRING）**   *2024* 年 – 現在
東京理科大学「イノベーティブ博士人材育成のための共創力強化プロジェクト」

7. References

Prof. Kouji Tahata, Tokyo University of Science, tahata@rs.tus.ac.jp