

# Zeyu Lyu

Associate Professor  
Graduate School of Arts and Letters  
Tohoku University

lyu.zeyu.e8@tohoku.ac.jp  
[researchmap.jp/lyuzeyu](http://researchmap.jp/lyuzeyu)

## EDUCATION

- Ph.D. Computational Humanities and Social Sciences, Tohoku University, 2019-2022  
M.S. Behavioral Science, Tohoku University, 2017-2019  
B.S. Journalism, Northeastern University (China), 2012-2016

## WORK EXPERIENCE

- 2023/4-Present **Associate Professor**  
Graduate School of Arts and Letters, Tohoku University  
2022/4-2023/3 **Project Researcher**  
Institute of Social Science, The University of Tokyo

## GRANTS AND AWARDS

### Awards and Honors

- 2022 Tohoku University President's Award  
2018 Monbukagakusho Honors Scholarship for Privately Financed International Students

### Grants (PI)

- 2025-2028 *Investigating social spatial segregation using large-scale mobility data*, [Grant-in-Aid for Early-Career Scientists: 25K16783](#)  
2024-2026 *Using Large Language Models to Simulate Opinion Polarization and Evaluate Depolarizing Interventions*, Sustainability Open Knowledge-Action Program by Connecting Multi-stakeholder  
2022-2024 *Investigation of Opinion Polarization in Online Communication: Towards an Integration of Explanation and Prediction*, [Grant-in-Aid for Research Activity Start-up: 22K20182](#)  
2022-2023 Research Grant of Institute of Social Science, the University of Tokyo (東京大学社会科学研究所所内プロジェクト支援経費)  
2020-2022 *Investigating the mechanism political polarization on social media*, [Grant-in-Aid for JSPS Fellows: 20J11407](#)  
2019-2020 *Sentiment analysis on social media: Combining natural language processing and network analysis to examine how social media shape opinion dynamics*, The Division for Interdisciplinary Advanced Research and Education Research Grant

## Grants (Co-Investigator)

- 2025-2027 歴史史料から探る100年以上の長期気象変化(村田学術振興・教育財団研究助成文理融合 /PI: Kohei Ichikawa)
- 2024-2026 ビッグデータを用いた社会秩序問題の解明－計算社会秩序論の創成－(Grant-in-Aid for Challenging Research (Exploratory):24K21436 /PI: Yoshimichi Sato)
- 2022-2025 動的多細胞コミュニティの数理社会解析 (Transformative Research Areas:22Ho5o86 /PI: Susumu Cato)

## Fellowships

- 2020-2022 JSPS Research Fellowship for Young Scientists DC2
- 2019-2022 AIE - WISE Program for AI Electronics, Tohoku University
- 2019-2022 The Division for Interdisciplinary Advanced Research and Education, Tohoku University

## PUBLICATIONS

### Peer-Review Articles

- 2025 Wang Zhichao, **Zeyu Lyu**. “From ABM to GABM: How Generative AI is Reshaping Social Simulation”, *Journal of Intelligent Society* 4(2): 138-157. [link](#) (corresponding author).
- 2023 **Zeyu Lyu**, Kohei Ichikawa, Yongchao Cheng, Hisashi Hayakawa, Yukiko Kawamoto. “Digitization of weather records of Seungjeongwon Ilgi: A historical weather dynamics dataset of the Korean Peninsula in 1623–1910”, *Geoscience Data Journal* 11:504–513,. [doi:10.1002/gdj3.227](#).
- 2022 **Zeyu Lyu**, “Cross-cutting interaction, inter-party hostility, and partisan identity: Analysis of offensive speech in social media”, *New Media and Society* 27(2):595-613. [doi:10.1177/14614448231180654](#).
- 2022 **Zeyu Lyu**, Hiroki Takikawa. “Media framing and expression of anti-China sentiment in COVID-19-related news discourse: An analysis using deep learning methods”, *Heliyon*, 8(8):e10419. [doi:10.1016/j.heliyon.2022.e10419](#).
- 2022 **Zeyu Lyu**, Hiroki Takikawa. “Disparity and Dynamics of Social Distancing Behaviors in Japan: An Investigation of Mobile Phone Mobility Data”, *JMIR Medical Informatics* 10(3):e31557. [doi:10.2196/31557](#)
- 2020 Maoxin Ye, **Zeyu Lyu**. “Trust, Risk Perception, and COVID-19 Infections: Evidence from Multilevel Analyses of Combined Original Dataset in China”, *Social Science and Medicine* 265:113517. [doi:10.1016/j.socscimed.2020.113517](#) (corresponding author)
- 2020 **Zeyu Lyu**. “Ideological and Behavioral Perspectives on Political Polarization: Evidence from Japan.”, *Sociological Theory and Methods* 35(2). [doi:10.11218/ojcams.35.170](#)
- 2019 **Zeyu Lyu**. “Towards an Understanding of Online Extremism in Japan”, *IEEE/WIC/ACM International Conference on Web Intelligence on - WI '19 Companion*. [doi:10.1145/3358695.3360922](#)

Books

- 2024 **Zeyu Lyu**, Kikuko Nagayoshi, Hiroki Takikawa. “Polarization of Opinion”, in *Sociological Foundations of Computational Social Science*, Springer: [2509-9574](#)
- 2024 瀧川裕貴, 呂沢宇, 稲垣佑典, 中井豊, 常松淳, 阪本拓人, 大林真也. “ソーシャル・ディスタンス政策のメンタルヘルスへの影響”パンデミックと社会科学—ポストコロナから見えるもの, 勁草書房:[978-4-326-30337-3](#)

Other Articles

- 2024 下窪拓也, 呂沢宇, 永吉希久子, 瀧川裕貴, 渡辺誓司, 中村美子. “X から浮かび上がる東京 2020 パラリンピック競技大会と障害者への意識: 計算社会科学におけるソーシャルメディア分析技術の応用”, 放送研究と調査 74(8). [link](#)
- 2024 呂沢宇. “自然言語処理の社会科学における応用”, 社会と調査 32:116–123. [link](#)
- 2023 永吉希久子, 瀧川裕貴, 呂沢宇, 下窪拓也, 渡辺誓司, 中村美子. “ソーシャルメディア言論分析の方法 II: 安倍首相に対する Twitter 上の投稿分析を事例としたトピックモデルの適用”, 放送研究と調査 73(4).  
[doi:10.24634/bunken.73.426](#)
- 2023 瀧川裕貴, 永吉希久子, 呂沢宇, 下窪拓也, 渡辺誓司, 中村美子. “ソーシャルメディア言論分析の方法 I: 2020 年 1 月から辞任までの安倍首相に対する Twitter 上の投稿分析を事例として”パンデミックと社会科学—ポストコロナから見えるもの, 放送研究と調査 73(3). [doi:10.24634/bunken.73.370](#)