Donghao Zhu

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EDUCATION

Technical University of Munich, Germany 2019 – 2023 (expected)
School of Computation, Information and Technology/School of Management
Ph.D. candidate in Computer Science and Operation Research
Advisor: Prof. Dr. Martin Bichler and Prof. Dr. Stefan Minner

The University of Tokyo, Japan 2016 – 2019
Graduate School of Arts and Sciences
M.Sc. in Multidisciplinary Sciences (Math & Computer Sciences)
Advisor: Prof. Dr. Akira Kakimura and Prof. Dr. Naonori Kakimura

SooChow University, China 2012 – 2016
B.A. in Engineering (Honors Program)

RESEARCH INTERESTS

OM/OR Topics: Platform Design, Matching, Queueing Theory, Policy & Data Analysis
Methodology: Stochastic Modeling, Optimization, Agent-based Simulation, Reinforcement Learning
Theoretical Computer Science: Complexity Analysis, Approximation Algorithm Design

WORKING PAPERS (NOT FULLY DOCUMENTED)

1. J. Bäumler, M. Bullinger, S. Kober, **D. Zhu**. Superiority of Instantaneous Decisions in Thin Dynamic Matching. *To be submitted*, 2023.

   - Presented at UTMD (*The University of Tokyo Market Design Center*) Seminar, the University of Tokyo, Japan, 2022.

   - Personal talk at Tokyo Institute of Technology, Japan, 2022; Keio University, Japan, 2022.

2. N. Kakimura and **D. Zhu**. Dynamic Bipartite Matching Markets with Arrivals and Departures. *To be submitted*, 2023.

   - Presented at ACM WINE *(Web and Internet Economics)*, 2021, Virtual; AdONE Retreat Seminar, Technical University of Munich, Germany 2019.

   - Personal talk at Tokyo Institute of Technology, Japan, 2022; Keio University, Japan, 2022.

PROCEEDINGS

1. J. Bäumler, M. Bullinger, S. Kober and **D. Zhu**. Superiority of Instantaneous Decisions in Thin Dynamic Matching Markets. *ACM EC (Economics and Computation), 2023.*

2. N. Kakimura and **D. Zhu**. Dynamic Bipartite Matching Market with Arrivals and Departures. *ACM WINE (Web and Internet Economics), 2021.*

WORK-IN-PROGRESS

Available upon request.

STUDENT ADVISING

Master Thesis:

- "Dynamic Pricing Problem on Platform: Considering Relocation", Management, TUM 2022
- "Flexible Batching in a Freight Exchange Platform", Math, TUM 2020

Bachelor Thesis:

- "The Housing Market under a Supply Shortage", Informatics, TUM 2021
- "Analysis of Business Models in the Sharing Economy", Informatics, TUM 2020
- "Investigation of Batching Algorithms in Online Matching Markets", Informatics, TUM 2020

Advanced Seminar Operations & Supply Chain Management at TUM 2021

- "One-to-one Matching Market: Pricing in Ride-hailing Platforms", Management, TUM.
- "One-to-one Matching Market: a Survey", Management, TUM.

WORKING EXPERIENCE

Research Assistant, ERATO Kawarabayashi Large Graph Project, National Institute of Informatics, Japan 2017 – 2019

ACADEMIC SERVICE

Journal Referee: *International Journal of Production Economics*
Session Chair: MSOM (*Manufacturing & Service Operations Management*) Conference 2022
Conference Organization Assistance: WITS (*Workshop on Information Technologies and Systems*) 2019

SKILLS

Programming/Software: Python, C, Gurobi, html, LaTeX, Matlab
Language: English (fluent), Japanese (conversation), Chinese (native)

REFERENCES

Available upon request.