ANTHONY KIM

SKK Graduate School of Business, Sungkyunkwan University
25-2 Sungkyunkwan-ro, Jongno-gu, Seoul, Korea
Email: aekim@skku.edu

RESEARCH INTERESTS

Revenue management, advertising, mechanism design, game theory, online decision making, algorithms

EDUCATION

Stanford University, Stanford, CA, USA   Sep 2012 - Jul 2018
Ph.D. in Computer Science
  Advisor: Prof. Amin Saberi
  Thesis: Optimization and Decision-Making under Uncertainty

Massachusetts Institute of Technology, Cambridge, MA, USA   Sep 2005 - Aug 2010
M.Eng. in Electrical Engineering and Computer Science
  Advisor: Prof. Muriel Médard
  Thesis: On Network Coding Capacity - Matroidal Networks and Network Capacity Regions
B.S. in Electrical Engineering and Computer Science with minor in Economics
B.S. in Mathematics

ACADEMIC APPOINTMENTS

Sungkyunkwan University, Seoul, Korea   Aug 2022 - present
Assistant Professor of Decision Sciences in the SKK Graduate School of Business

Columbia University, New York, NY, USA   Aug 2018 - Jul 2020
Postdoctoral Fellow in the Decision, Risk, and Operations (DRO) Division of Columbia Business School

PROFESSIONAL EXPERIENCE

Amazon, New York, NY, USA   Aug 2020 - July 2022
Applied Scientist in the Sponsored Products Allocation, Pricing, and Marketplace Controls (APMC) team

Google, Inc., Mountain View, CA, USA   Summer 2017
Software Engineering Intern in the Spacetime team

Google, Inc., Mountain View, CA, USA   Summer 2016
Software Engineering Intern in the Market Research and Algorithms team

Technicolor Labs, Palo Alto, CA, USA   Summer 2013
Research Intern

Quora, Inc., Mountain View, CA, USA   Summer 2012
Software Engineering Intern

Oracle Corporation, Redwood Shores, CA, USA   Sep 2010 - May 2012
Software Engineer in the Data Layer team in Database Server Technology

PUBLICATIONS

Authorship order in operations management and related fields (including economics, computer science and operations research) is conventionally alphabetic by last name.

- **On the Futility of Dynamics in Robust Mechanism Design**. S. Balseiro, A. Kim, and D. Russo.
    - *Operations Research*, Volume 69, Issue 6, 2021.

- **Deals or No Deals: Contract Design for Online Advertising**. A. Kim, V. Mirrokni, and H. Nazerzadeh.
    - *Operations Research*, Volume 69, Issue 5, 2021.
    - Preliminary version by my co-authors appeared in the *26th International World Wide Web Conference (WWW)*, 2017.

- **Budget Management Strategies in Repeated Auctions**. S. Balseiro, A. Kim, M. Mahdian, and V. Mirrokni.
    - *Operations Research*, Volume 69, Issue 3, 2021.
    - Extended abstract "Budget-Constrained Incentive Compatibility for Stationary Mechanisms" appeared in the *21st ACM Conference on Economics and Computation (EC)*, 2020.

- Preliminary version (for different parts than the EC version above) appeared in the *26th International World Wide Web Conference (WWW)*, 2017.

- **Minimizing Latency in Online Ride and Delivery Services**. A. Das, S. Gollapudi, A. Kim, D. Panigrahi, and C. Swamy.
    - In the *27th Web Conference (formerly, World Wide Web Conference)*, 2018.
    - Received a *Research Paper Honorable Mention*.

- **Online Energy Storage Management: an Algorithmic Approach**. A. Kim, V. Liaghat, J. Qin, and A. Saberi.
    - In the *19th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX)*, 2016.

- **Welfare Maximization with Production Costs: A Primal Dual Approach**. Z. Huang and A. Kim.
    - *Games and Economic Behavior (GEB)*, Volume 118, November 2019. (Special Section on Algorithmic Game Theory for STOC/FOCS/SODA 2014-15)
    - Preliminary version appeared in the *26th ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2015.

- **Near-Optimal No-Regret Algorithms for Zero-Sum Games**. C. Daskalakis, A. Deckelbaum, and A. Kim.
    - *Games and Economic Behavior (GEB)*, Volume 92, July 2015. (Special Issue: Algorithmic Game Theory – STOC/FOCS/SODA 2011)
    - Preliminary version appeared in the *22nd ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2011.

- **Welfare Maximization with Deferred Acceptance Auctions in Reallocation Problems**. A. Kim.
    - In the *23rd European Symposium on Algorithms (ESA)*, 2015.

- **The Shapley Value in Knapsack Budgeted Games**. S. Bhagat, A. Kim, S. Muthukrishnan, and U. Weinsberg.
    - In the *10th Conference on Web and Internet Economics (WINE)*, 2014.
    - Earlier version appeared in the *Fifth International Workshop on Computational Social Choice (COMSOC)*, 2014.

- **Computing Bounds on Network Capacity Regions as a Polytope Reconstruction Problem**. A. Kim and M. Médard.
    - In the *IEEE International Symposium on Information Theory (ISIT)*, 2011.

- **Scalar-Linear Solvability of Matroidal Networks Associated with Representable Matroids**. A. Kim and M. Médard.
    - In the *6th International Symposium on Turbo Codes and Iterative Information Processing (ISTC)*, 2010.

TEACHING EXPERIENCE
Sungkyunkwan University, SKK Graduate School of Business

- **Business Analytics** (formerly, Quantitative Analysis for Business Decisions) (*Full-time MBA, Professional MBA*), Fall 2022 - present.

- **Statistics for Data Science** (*Business Analytics MBA*), Fall 2022 - present.

- **Sustainable Supply Chain Management** (*Full-time MBA, Professional MBA*), Fall 2023 - present.

HONORS AND AWARDS
Columbia DRO Postdoctoral Award	2018 - 2020
Research Paper Honorable Mention in the Web Conference	2018
NSF Graduate Research Fellowship	2012 - 2015
Eta Kappa Nu National Honor Society for EECS	

PROFESSIONAL SERVICE

- Program Committee member or reviewer for *ACM Web Conference*, 2020 - 2025.

- Program Committee member for *International Symposium on Algorithmic Game Theory*, 2025.

- Program Committee member for *ACM Conference on Economics and Computation*, 2024.

- Reviewer for *Management Science*, *Manufacturing and Service Operations Management*, *Operations Research*.

SELECT PRESENTATIONS

- **On the Futility of Dynamics in Robust Mechanism Design**
  - *The INFORMS Annual Meeting*, October 2019
  - *The Cornell ORIE Young Researchers Workshop*, October 2019
  - *The Manufacturing and Service Operations Management Conference (MSOM)*, July 2019
  - *The INFORMS Revenue Management & Pricing Conference (RMP)*, June 2019
  - *The ACM EC Workshop on Learning in Presence of Strategic Behavior*, June 2019 (Short Talk + Poster)
  - *The Second New York City Operations Day*, March 2019 (Poster)

- **Budget Management Strategies in Repeated Auctions**
  - *The INFORMS Annual Meeting*, October 2019
  - *The 5th Google Market Algorithms Workshop*, February 2019 (Short Talk)
  - *The NIPS Workshop on Learning in the Presence of Strategic Behavior*, December 2017 (Poster)
  - *The Third Workshop on Marketplace Innovation*, June 2017 (Poster)
  - *The 9th New York Computer Science and Economics Day*, May 2017 (Poster)
  - *The 26th International World Wide Web Conference*, April 2017
  - *Stanford CS Theory Lunch*, March 2017

- **Minimizing Latency in Online Ride and Delivery Services**
  - *The 23rd International Symposium on Mathematical Programming (ISMP)*, July 2018
  - *The 27th Web Conference (formerly, World Wide Web Conference)*, April 2018
  - *The Third Theory of Computing Associated (TOCA-SV) Meeting*, January 2018 (Short Talk)

COMPUTER SKILLS

C/C++, Python; Also have used Java, SQL, Matlab, Maple, Scheme, LaTeX