Yutian (Kate) Chen

Curriculum Vitae

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Education

Ph.D. in Economics, State University of New York at Stony Brook, 2007 M.A. in Economics, State University of New York at Stony Brook, 2003 B.A. in Economics, Renmin University, Beijing, P.R.China, 1996

Research Fields

Game Theory; Industrial Organization; Reinforcement Learning

Academic Positions

July 2022 to present: Interim Chair, Economics Department, California State University, Long Beach.

August 2018 to present: Professor, Economics Department, California State University, Long Beach.

August 2013 to July 2018: Associate Professor, Economics Department, California State University, Long Beach.

August 2007 to July 2013: Assistant Professor, Economics Department, California State University, Long Beach.

Peer-Reviewed Journal Publications

"Truthful and Optimal Data Preservation in Base Station-less Sensor Networks: An Integrated Game Theory and Network Flow Approach", Yuning Yu, Shangli Hsu, Andre Chen, Yutian Chen and Bin Tang. *ACM Transactions on Sensor Networks*, 2023, forthcoming. Online version available on <u>https://doi.org/10.1145/3606263</u>.

"Should Traditional Retailers Function as Pre-warehouses of Online Retailers?" (with H. Xiong and Y.-J. Chen), International Journal of Production Research, Vol. 59, Issue 5, 2021.

"Strategic Partial Outsourcing in the Presence of Single-source Components" (with Y.-J. Chen), Journal of Economics, Vol. 131, Issue 3, 2020.

"Learning by Outward FDI: Evidence from Chinese Manufacturing Enterprises" (with Y. Yang and Z. Wu), Panoeconomicus, Vol. 64, Issue 4, 2017.

"Strategic Outsourcing under Economies of Scale" (with D. Sen), Bulletin of

Economic Research, Vol. 67, Issue 2, 2015.

"Strategic Outsourcing under Technology Spillovers" (with Y.-J. Chen), *Naval Research Logistics*, Vol. 61, Issue 7, 2014.

"Outsourcing and Downstream R&D under Economies of Scale" (with D. Sen), *B.E. Journal of Theoretical Economics*, Vol. 12, 2012.

"A Theory on Predatory Advertising after A Demand-reducing Shock" (with W. Tan), *Eastern Economic Journal*, Vol. 38, 2012.

"Outsourcing Induced by Strategic Competition" (with P. Dubey and D. Sen), *International Journal of Industrial Organization*, Vol. 29, 2011.

"Strategic Sourcing for Entry Deterrence and Tacit Collusion", *Journal of Economics*, Vol. 102, 2011.

"Strategic Outsourcing between Rivals", *Annals of Economics and Finance*, 11(2), 2010.

Peer-Reviewed Conference Publications

"Data-VCG: A Data Preservation Game for Base Station-less Sensor Networks with Performance Guarantee", Jennifer Ly, Yutian Chen, and Bin Tang. Proceedings of the 3rd International Workshop on Time-Sensitive and Deterministic Networking (TENSOR), IFIP Networking 2023.

"Prize-Collecting Traveling Salesman Problem: a Reinforcement Learning Approach", Justin Ruiz, Christopher Gonzalez, Yutian Chen, and Bin Tang. Proceedings of the IEEE International Conference on Communications (ICC 2023).

"Nash Equilibria of Data Preservation in Base Station-less Sensor Networks", Giovanni Rivera, Yutian Chen, and Bin Tang. Proceedings of the Third Computer Science Conference for CSU Undergraduates (CSCSU 2023).

"Voluntary Data Preservation Mechanism in Base Station-less Sensor Networks" (with J. Ly and B. Tang), Proceedings of the 12th EAI International Conference on Game Theory for Networks (*GameNets* 2022).

"Service Function Chain Placement in Cloud Data Center Networks: a Cooperative Multi-Agent Reinforcement Learning Approach" (with L. Gao and B. Tang), *Proceedings of the 11th EAI International Conference on Game Theory for Networks (GameNets 2021).*

"Profit-Based File Replication in Data Intensive Cloud Data Centers" (with M. Alghamdi and B. Tang), *Proceedings of the IEEE International Conference on Communications*, 2017.

"Data Preservation in Base Station-less Sensor Networks: A Game Theoretic Approach" (with B. Tang), *Proceedings of the 6th EAI International Conference on Game Theory for Networks*, 2016.

"Data Caching in Ad Hoc Networks Using Game-Theoretic Analysis" (with B. Tang), Proceedings of the IEEE International Conference on Sensor Networks, Ubiquitous, and Trust- worthy Computing (SUTC'10), Newport Beach, California, 2010.

Working Papers

"Profit Maximization Game for Data Preservation in Base Station-less Sensor Networks" (with B. Tang and J. Ly), submitted to a refereed conference.

"Raising Price to Encourage Brand Loyalty: A New Explanation for the 'Generic Competition Paradox' " (with S. Seiji).

"Pricing Patterns of Digital Computer Games" (with C. Ng).

Research Grants

NSF Grant 2131309, 2022-2023 for research project "Collaborative Research: CISE-MSI: RCBP-RF: CNS: Truthful and Optimal Data Preservation in Base Station-less Sensor Networks: An Integrated Game Theory and Network Flow Approach". PI. (\$300,000)

ORSP Internal Grant, California State University, Long Beach, 2016-2017 for research project "Data Preservation in Base Station-less Sensor Networks: A Game Theoretic Approach". (\$5,000)

Research Presentations

The 3rd International Workshop on Time-Sensitive and Deterministic Networking (TENSOR), IFIP Networking 2023. Presented "Data-VCG: A Data Preservation Game for Base Station-less Sensor Networks with Performance Guarantee".

The IEEE International Conference on Communications (IEEE ICC) 2023. Presented "Prize-Collecting Traveling Salesman Problem: A Reinforcement Learning Approach".

The 33th International Conference on Game Theory, Stony Brook, 2022. Presented "Data-VCG: a Data Preservation Game for Base Station-less Sensor Networks with Performance Guarantee".

The virtual 96th Annual Conference of W Western Economic Association International (WEAI), 2021. Presented "Truthful Mechanism Design for Data Offloading among Selfish Sensors". Discussed "Staying home so you can keep going out: A multiplayer self-isolation game modelling pandemic behavior".

The 94th Annual Conference of Western Economic Association International (WEAI), 2019. Presented "Data Preservation in Base Station-less Sensor Networks: A Game Theoretic Approach". Discussed "Scalable Optimal Online Auctions".

The 93th Annual Conference of Western Economic Association International (WEAI), 2018. Presented "On the National Brand Manufacturer's Incentive to Supply Retailer's Store Brand". Discussed "Quality, Price Control and Parallel Imports".

The 28th International Conference on Game Theory, Stony Brook, 2017. Presented "Strategic Partial Outsourcing in the Presence of Bottleneck Components" and "Data Preservation in Base Station-Less Sensor Networks: A Game Theoretic Approach". Discussed "Experimentation with An Informed Principle" by Y. Sun.

The 92th Annual Conference of Western Economic Association International (WEAI), 2017. Presented "Strategic Partial Outsourcing in the Presence of Bottleneck Components". Discussed "Small Businesses and Economic Wellbeing: The Case of Five Poorest States in the U.S." by A. Taivan et al.

IEEE International Conference on Communications, Paris, France, 2017. Presented "Profit-Based File Replication in Data Intensive Cloud Data Centers".

The 6th EAI International Conference on Game Theory for Networks, Kelowna, BC, Canada, 2016. Presented "Data Preservation in Base Station-less Sensor Networks: A Game Theoretic Approach".

Economics Seminar, California State University, Long Beach, 2015. Presented "Raising Price to Encourage Brand Loyalty: A New Explanation for the 'Generic Competition Paradox'".

Operations Research seminar, University of California, Berkeley, June 2012. Presented "Strategic Capacity Shortage in Global Sourcing: A New Rationale for On-shore Production".

The 10th International Industrial Organization Conference (IIOC). Arlington, 2012. Presented "Strategic Capacity Shortage in Global Sourcing: A New Rationale for On-shore Production"; discussed "Vertical exclusion with downstream risk aversion" by S. Hansen et al.

The 87th Annual Conference of Western Economic Association International (WEAI), 2012. Presented "Strategic Capacity Shortage in Global Sourcing: A New Rationale for On-shore Production"; discussed "Network congestion and the unilateral effects analysis of mergers" by B. Pinto and D. Sibley; discussed "Cause of return reversal: information monopoly hypothesis" by V. Dalko et al.

The 86th Annual Conference of Western Economic Association International (WEAI), 2011. Presented "Strategic Sourcing under Technology Spillovers"; discussed "Strategic R&D with Technology Licensing and Welfare", by C. Peng, R. Chang and H. Hwang.

The 8th International Industrial Organization Conference (IIOC). Vancouver, 2010. Presented "Upstream Outsourcing, Economies of Scale, and Incentives for Downstream R&D"; discussed "Negotiating for the Market" by Joshua Gans.

The 85th Annual Conference of Western Economic Association International (WEAI), 2010. Presented "Upstream Outsourcing, economies of scale, and incentives for downstream R&D". Served as the session chair.

The 7th International Industrial Organization Conference (IIOC). Boston, 2009. Presented

"Strategic Outsourcing under Economies of Scale"; discussed "Making Sense of Non-binding Retail Price Recommendations" by S. Buehler and D. Gartner.

The 5th Biennial Conference of HKEA. Chengdu, China, 2008. Presented ``Strategic Sourcing and Entry Deterrence".

The 6th International Industrial Organization Conference (IIOC). Washington D. C., 2008. Presented "Outsourcing Induced by Strategic Competition"; discussed "Vertical Mergers in Procurement Markets" by C. Thomas.

The 5*th* International Industrial Organization Conference (IIOC). Savannah, 2007. Pre- sented "Strategic Sourcing and Entry Deterrence".

The 17*th* International Conference on Game Theory. Stony Brook, 2006. Presented "Strate- gic Sourcing and Entry Deterrence". Midwest Economic Association Conference. Chicago, 2006. Presented "Strategic Sourcing and Entry Deterrence".

Eastern Economic Association Conference. Philadelphia, 2006. Presented "Strategic Sourc- ing and Entry Deterrence".

American Society for Competitiveness Conference. Washington D.C., 2005. Presented "Outsourcing Induced by Strategic Competition" and "Outsourcing under Economies of Scale and Strategic Competition".

Honors and Awards

RSCA Released Time Award, California State University, Long Beach, 2023-2024.

RSCA Released Time Award, California State University, Long Beach, 2022.

RSCA HEERF Award, California State University, Long Beach, 2021, Higher Education Emergency Relief Fund.

RSCA Summer Stipend Award, California State University, Long Beach, Summer 2021.

RSCA Released Time Award, California State University, Long Beach, 2020-2021.

RSCA Released Time Award, California State University, Long Beach, 2019-2020.

RSCA Released Time Award, California State University, Long Beach, 2018-2019.

RSCA Released Time Award, California State University, Long Beach, 2017-2018.

ORSP Internal Grant Award, California State University, Long Beach, 2016-2017.

RSCA Released Time Award, California State University, Long Beach, 2014-2015.

RSCA Released Time Award, California State University, Long Beach, 2011-2012.

Block Grant Released Time Award, California State University, Long Beach, 2010-2011.

Scholarly and Creative Activities Committee Stipend Award, California State University, Long Beach, 2007-2008.

Teaching Experience

Managerial Economics IndustrialOrganization Game Theory FundamentalsofEconomics Principles of Microeconomics

Referee Services

European Economic Review Contemporary Economic Policy Journal of Economics Annals of Economics and Finance African Journal of Business Management International Economic Review B.E. Journal of Theoretical Economics Journal of Economic Behavior and Organization International Journal of the Economics and Business Southern Economic Journal Review of Industrial Organization Journal of Systems Science and Systems Engineering International Review of the Economics and Finance

Activities in Community and Profession

 ${\tt 2009-2011} Program Committee for the Annual Conference of Western Economic Association International (WEAI)$

2011 Program Committee for the 9th Biennial Pacific Rim Conference of Western Economic Association International (WEA)