Sheng Dai

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PROFESSIONAL EXPERIENCE

Aalto University School of Business, Finland

9/2018 -

Ph.D. Candidate (supervisor: Professor Timo Kuosmanen)

Research Center of Resource and Environmental Economics, CUG, China

9/2014 - 8/2018

Research Assistant (supervisor: Professor Jinhua Cheng)

RESEARCH INTERESTS

Environmental and Resource Economics, Nonparametric Econometrics, Optimization, Production Economics, Applied Microeconometrics

EDUCATION

Aalto University School of Business, Finland

9/2018 -

Ph.D. in Management Science

China University of Geosciences, China

9/2014 - 6/2017

M.Sc. in Management Science

China University of Geosciences, China

9/2010 - 6/2014

B.Sc. in Business Management

PUBLICATIONS

Peer-Reviewed Journal Articles

Accepted

- [J12] Yi, J., Dai, S., Cheng, J., Wu, Q., & Liu, K. (2021). Production quota policy in China: Implications for sustainable supply capacity of critical minerals. *Resources Policy*, 72, 102046.
- [J11] Dai, S., Zhou, X., & Kuosmanen, T. (2020). Forward-looking assessment of the GHG abatement cost: Application to China. *Energy Economics*, 88, 104758. (ABS 3)
- [J10] Kuosmanen, T., Zhou, X., & Dai, S. (2020). How much climate policy has cost for OECD countries?. *World Development*, 125, 104681. (ABS 3)
- [J9] Cheng, J., Yi, J., Dai, S., & Xiong, Y. (2019). Can low-carbon city construction facilitate green growth? Evidence from China's pilot low-carbon city initiative. *Journal of Cleaner Production*, 231, 1158-1170.
- [J8] Dai, Q., Ye, X., Wei, Y. D., Ning, Y., & Dai, S. (2018). Geography, ethnicity and regional inequality in Guangxi Zhuang autonomous region, China. *Applied Spatial Analysis and Policy*, 11(3), 557-580.
- [J7] Chen, J., Cheng, J., & Dai, S. (2017). Regional eco-innovation in China: An analysis of eco-innovation levels and influencing factors. *Journal of Cleaner Production*, 153, 1-14.
- [J6] Cheng, J., Dai, S., & Ye, X. (2016). Spatiotemporal heterogeneity of industrial pollution in China. *China Economic Review*, 40, 179-191.

- [J5] Dai, S. Variable selection in convex quantile regression: L1-norm or Lo-norm regularization? Revised and Resubmitted. February. 2022
- [J4] Dai, S., Fang, Y.H., Lee, C.Y., Kuosmanen, T. pyStoNED: A Python Package for Convex Regression and Frontier Estimation. September 2021.
- [J3] Kuosmanen, T., Tan, A., Dai, S. Production function of death: Performance assessment of the English NHS hospitals during the first wave of the COVID-19 pandemic. September 2021.
- [J2] Yi J., Dai S., Cheng J., Liu K. How urban sprawl affects local and adjacent ecosystem services? Evidence from a spatial analysis of China. September 2021.
- [J1] Lehtelä J., Dai S., Kuosmanen T. Ripple Effect in the European Football Transfer Markets. October 2021.

Selected Work in Progress

- [W₃] Dai, S., Kuosmanen, T., Zhou, X. Non-crossing nonparametric quantile frontier estimation
- [W2] Dai, S., Kuosmanen, T., Zhou, X. Partial frontiers are not quantiles.
- [W1] Kuosmanen, T., Kuosmanen, N., Dai, S. Synergies and tradeoffs in sustainable development.

Python package

[P1] Dai, S., Fang, Y. H., Lee, C. Y., Kuosmanen, T. A Python Package for Convex Regression and Frontier Estimation. https://github.com/ds2010/pyStoNED.

TEACHING EXPERIENCE

Thesis advisor and Examiner

3/2020 -

1/2019 -

Master's Thesis, Aalto University School of Business, Finland

Teaching Assistant

Econometrics (30C00200), Bachelor, Aalto University School of Business, Finland Productivity and Efficiency Analysis (30E00300), Master, Aalto University School of Business, Finland

GRANTS AND AWARDS

Research funding and grants:

Foundation for Economic Education. A sum of € 45,940 for doctoral studies and research. 2018, 2019, 2021

HSE Support Foundation. € 6,000 for doctoral studies and research.

2019

Foundation for Economic Education, A sum of € 3,100 for attending academic conferences. 2018 – 2022

HSE Support Foundation. A sum of € 4,800 for attending academic conferences.

2018 - 2022

2019

2016

Awards and honours:

HSE Support Foundation. € 667 for *Recognition awards for quality publications* (total € 2,000).

Ministry of Education of the P.R.C. CNY 20,000 for *National Scholarship* for Postgraduates.

Regional Science Association of China (RSAC). CNY 2,000 for Distinguished Youth Scholar Paper. 2016

Ministry of Education of the P.R.C. A sum of CNY 10,000 for *National Encouragement Scholarship* for undergraduates.

CONFERENCE AND SEMINAR PRESENTATIONS

| 31st (hybrid) European Conference on Operation Research, Athens, Greece | 06/2021 |
|---|---------|
| 29th The Society for Risk Analysis-European conference, Espoo, Finland | 06/2021 |
| 11th (virtual) North American Productivity Workshop, Miami, USA | 06/2020 |
| 16th European Workshop on Efficiency and Productivity Analysis, London, UK | 06/2019 |
| 42nd International Association for Energy Economics Annual Conference, Montréal, Canada | 05/2019 |
| 6th International Association for Energy Economics Asian Conference, Wuhan, China | 11/2018 |
| 6th World Congress of Environmental and Resource Economists, Gothenburg, Sweden | 06/2018 |
| Regional Science Association of China Annual Meeting, Changsha, China | 10/2016 |
| The Sixth Asian Seminar in Regional Science, Sendai, Japan | 09/2016 |

SKILLS

Programming: R, Python, Stata, Julia, GAMS, Languages: Chinese (native), English (fluent)

REFEREEING AND MEMBERSHIP

Referee: Environmental and Resource Economics, Journal of Cleaner Production, Resources Policy,

Heliyon, IEEE Access, Ecosystem Health and Sustainability, Journal of Regulatory Economics

Economic Analysis and Policy, Emerging Markets Finance and Trade

Membership: International Association for Energy Economics (IAEE),

Association of Environmental and Resource Economists (AERE)

REFERENCES

Dr. Timo Kuosmanen (Doctoral supervisor and co-author), Professor, Aalto University School of Business, Espoo, Finland. Email: timo.kuosmanen@aalto.fi

Dr. Jinhua Cheng (Master's supervisor and co-author), Professor and vice-president, China University of Geosciences, Wuhan, China. Email: chengjinhua100@126.com

Dr. Xun Zhou (co-author), Lecturer (Assistant Professor), University of York, York, UK. Email: xun.zhou@york.ac.uk