Yuji Saikai

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Office Contact Information

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Undergraduate Studies

Bachelor of AgriCommerce, Massey University, New Zealand, 2013
Bachelor of Economics (Honours), the Australian National University, Australia, 2014

Graduate Studies

Complex Systems Summer School, Santa Fe Institute, 2017
Ph.D. in Agricultural & Applied Economics with minor in Computer Science, University of Wisconsin–Madison, 2020 (expected)

References

Paul Mitchell (Economics)
418 Taylor Hall
(608) 320-1162, pdmitchell@wisc.edu

Vivak Patel (Statistics)
1241 Medical Sciences Center
(608) 262-2539, vivak.patel@wisc.edu

Shawn Conley (Agronomy)
355 Moore Hall
(608) 262-7975, spconley@wisc.edu

Sheldon Du (Economics)
331 Taylor Hall
(608) 262-0699, xdu23@wisc.edu

Jun Zhu (Statistics)
1220A Medical Sciences Center
(608) 262-3720, jzhu@stat.wisc.edu

Thomas Rutherford (Economics)
323 Taylor Hall
(608) 316-4362, rutherford@aae.wisc.edu

Research Fields

Computational modeling
- Machine learning
- Bayesian optimization
- Agent-based modeling

Applications
- Agricultural systems
- Precision agriculture

Research Experience

Research assistant, 2015–Present

Teaching Experience

Lecturer in AAE722 Machine learning in applied economic analysis, Summer 2019
Teaching assistant in AAE706 Applied risk analysis, Spring 2019

Presentations

Agricultural & Applied Economics Association (AAEA) Annual Meeting, 2017–2019
NCERA 180 Precision Agriculture Technologies for Food, Fiber, and Energy Production, 2019
ASA-CSSA-SSSA International Annual Meeting, 2019

Research Papers

Machine learning for optimizing complex site-specific management

- with Vivak Patel and Paul Mitchell
- in progress
- https://github.com/ysaikai/BOPA

Adaptive experimental design using Bayesian optimization to improve the cost efficiency of small plot field trials

- with Vivak Patel, Shawn Conley, and Paul Mitchell
- under review in *PLOS ONE*
- https://github.com/ysaikai/AEDBO

An agent-based model of insect resistance management and mitigation for Bt maize: A social science perspective

- with Paul Mitchell and Terrance Hurley
- to be submitted to *Pest Management Science*
- https://doi.org/10.1101/732776

A bandit algorithm for efficient on-farm research

- with Paul Mitchell
- under review in *Computers and Electronics in Agriculture*
- https://github.com/ysaikai/MABPS

An agent-based model for promoting modest technologies

- https://github.com/ysaikai/TechAdoption