Sahoko Ishida

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The London School of Economics and Political Science
Houghton Street, London, UK

ACADEMIC POSITION

University of Oxford   Oxford, UK
Research Associate, Department of Computer Science   2024–present

> Projects include: small area estimation, spatio-temporal modelling, survey sampling, food security, satellite imagery

EDUCATION

London School of Economics and Political Science (LSE),   London, UK
PhD in Statistics. Advisor: Wicher Bergsma, Yunxiao Chen   2019–2024

> Thesis title: Statistical modelling with additive Gaussian process prior

London School of Economics and Political Science (LSE),   London, UK
MSc in Statistics (Research), with Distinction   2016–2017

> Courses taken include: Statistical Computing, Machine Learning and Data Mining, GLM and Survival Analysis, Multilevel Modelling

Waseda University,   Tokyo, Japan
BA in Global Political Economy, Advisor: Shuhei Kurizaki   2012–2016

> Focused on quantitative methods for political science and economics, minored in Data Analysis

RESEARCH INTERESTS

Gaussian process regression and kernel methods
Statistical modelling, interpretable statistical learning, efficient algorithms for large-scale data, missing values

Spatio-temporal analysis
Application to epidemiology, environmental study, social science

PRE-PRINT

1. **Ishida, S**. & Bergsma, W. (2023). Efficient and Interpretable Additive Gaussian Process Regression and Application to Analysis of Hourly-recorded NO_2 Concentrations in London. Pre-print on https://arxiv.org/abs/2305.07073

WORKING PAPERS

1. **Ishida, S**., Jamil, H., Bergsma, W. Gaussian process regression on an incomplete and large spatio-temporal grid and missing value imputation. Manuscript in preparation.

2. **Ishida, S**., et al., Transforming mobile phone surveys into fine-grained, population-representative maps of food security, Manuscript in preparation.

3. Panero, F., **Ishida, S**., Martini, G. Spatio-temporal modelling for food security with hierarchical Gaussian process. Working paper. Joint work with the Hunger Monitoring Unit in the United Nations World Food Program (WFP)

Scholorships & Awards

LSE PhD Studentship	2019-2023
LSE Class Teacher Awards, LSE Eden Centre	2023
The Winton Prize for Best Dissertation, Department of Statistics, LSE	2017
Waseda University's 125th Anniversary Scholarship, School of Political Science and Economics	2012

Conference Talks and Invited Presentations

International Meeting of the Psychometric Society, Maryland, USA	July 2023
Spatial Statistics, Boulder, USA	July 2023
Nordic Conference in Mathematical Statistics, Gothenburg, Sweden	June 2023
Joint Statistical Seminars, Umeå University, Sweden	September 2022
IMS Annual Meeting, London, UK	June 2022
Spatial Statistics, Sitges, Spain	July 2019

Teaching

Graduate Teaching Assistant, the Department of Statistics, LSE 2019-present
Class Teacher and Coursework / Exam Marker for Master's level courses
> ***ST411***: *Generalised Linear Modelling and Survival Analysis (R)*
> ***ST425***: *Statistical Inference: Principles, Methods and Computation (R)*
> ***ST451***: *Bayesian Machine Learning (Python, Stan)*

Class Teacher and and Coursework / Exam Marker for Bachelor's level courses:
> ***ST102***: *Elementary Statistical Theory*, ***ST104b***: *Statistics 2*, ***ST107***: *Quantitative Methods*
> ***ST115***: *Managing and Visualising Data (Python)*
> ***ST201***: *Statistical Models and Data Analysis (R)*
> ***ST308***: *Bayesian Inference (R, Stan, JAGS)*

Award: LSE Class Teacher Awards (2023)
Nomination: LSE Student Union Teaching Award for Excellent Feedback and Communication (2020)

Quantitative Advisor for Master's dissertation projects, LSE LIFE 2019-2022
One-to-one help sessions for students across discipline, including Statistics, Economics, Psychology, Health Policy, Government, International Relations, Management

Work Experience

Department of Statistics, LSE	London, UK
Research Assistant for Dr.Francesca Panero working in collaboration with World Food Program	2023-Present
Grantham Research Institute on Climate Change and the Environment, LSE	London, UK
Research Assistant for Dr.Daire McCoy working on record linkage (address matching) problems	2019
Eli Lilly Japan	Kobe, Japan
Statistical Analyst (full time) working in the team developing medication for type-II diabetes	2018
School of Political Science and Economics, Waseda University	Tokyo, Japan
Research Assistant for Associate Professor Shuhei Kurizaki on evaluation of Japan's defence policy	2016

Professional Development and Service

Reviewer for Statistical Methods & Applications	
Academic Representative, Department of Statistics, LSE	2021-2023
PhD/MSc Student Peer-to-Peer Mentor, Department of Statistics, LSE	2019-2021

Outreach

Speaker at Seien Girls' High School Career Day, Hamamatsu, Japan   2022
  Session organised by Soroptimist International Hamamamtsu

Private Educator, Tokyo, Japan   2016
  Tutoring and supporting pupils with special educational needs

Student Volunteer at ACTION (NPO), Olongapo, Philippines and Tokyo, Japan   2012
  Program targeting poverty alleviation for children on the street in Philippines