

# Sahoko Ishida

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

## ACADEMIC POSITION

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### University of Bologna

Research Fellow, Department of Statistical Sciences

Projects include: adaptive design of experiment and robust model selection

Bologna, Italy

2024–present

## EDUCATION

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### London School of Economics and Political Science (LSE),

PhD in Statistics. Advisor: Wicher Bergsma, Yunxiao Chen

Thesis title: Statistical modelling with additive Gaussian process prior

London, UK

2019–2024

### London School of Economics and Political Science (LSE),

MSc in Statistics (Research), with Distinction

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

London, UK

2016–2017

### Waseda University,

BA in Global Political Economy, Advisor: Shuhei Kurizaki

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

Tokyo, Japan

2012–2016

## RESEARCH INTERESTS

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### 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

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1. **Ishida, S.** & Bergsma, W. (2023). Efficient and Interpretable Additive Gaussian Process Regression and Application to Analysis of Hourly-recorded NO<sub>2</sub> Concentrations in London. Pre-print on <https://arxiv.org/abs/2305.07073>

## WORKING PAPERS

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1. **Ishida, S.**, Jamil, H., Bergsma, W. Gaussian process regression on an incomplete and large spatio-temporal grid. Manuscript in preparation.
2. 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)
3. **Ishida, S.**, MP Vctoria-Feser. Trimmed robust estimator for Multivariate mixed-type data

## SCHOLARSHIPS & AWARDS

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

## CONFERENCE TALKS AND INVITED PRESENTATIONS

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

## TEACHING

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<b>Graduate Teaching Assistant</b> , the Department of Statistics, LSE	2019-present
<i>Class Teacher and Coursework / Exam Marker for Master's level courses</i>	
<i><b>ST411</b>: Generalised Linear Modelling and Survival Analysis (R)</i>	
<i><b>ST425</b>: Statistical Inference: Principles, Methods and Computation (R)</i>	
<i><b>ST451</b>: Bayesian Machine Learning (Python, Stan)</i>	
<i>Class Teacher and Coursework / Exam Marker for Bachelor's level courses:</i>	
<i><b>ST102</b>: Elementary Statistical Theory, <b>ST104b</b>: Statistics 2, <b>ST107</b>: Quantitative Methods</i>	
<i><b>ST115</b>: Managing and Visualising Data (Python)</i>	
<i><b>ST201</b>: Statistical Models and Data Analysis (R)</i>	
<i><b>ST308</b>: Bayesian Inference (R, Stan, JAGS)</i>	
<i>Award: LSE Class Teacher Awards (2023)</i>	
<i>Nomination: LSE Student Union Teaching Award for Excellent Feedback and Communication (2020)</i>	
<b>Quantitative Advisor for Master's dissertation projects</b> , LSE LIFE	2019-2022
<i>One-to-one help sessions for students across discipline, including Statistics, Economics, Psychology, Health Policy, Government, International Relations, Management</i>	

## WORK EXPERIENCE

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

## PROFESSIONAL DEVELOPMENT AND SERVICE

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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

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Speaker at Seien Girls' High School Career Day, Hamamatsu, Japan <i>Session organised by Soroptimist International Hamamamtsu</i>	2022
Private Educator, Tokyo, Japan <i>Tutoring and supporting pupils with special educational needs</i>	2016
Student Volunteer at ACTION (NPO), Olongapo, Philippines and Tokyo, Japan <i>Program targeting poverty alleviation for children on the street in Philippines</i>	2012