

Profile and Skills

Hirofumi is currently a Ph.D. candidate at the Institute of Statistical Mathematics, working under the supervision of Prof. [Kengo Kamatani](#) and [Keisuke Yano](#).

He holds Japanese citizenship and is a native speaker of Japanese and Chinese. Additionally, He is fluent in English. Hirofumi codes in Julia, Python, and R.

Research Interests

- ✔ Monte Carlo methods, including Sequential Monte Carlo and Markov Chain Monte Carlo.
- ✔ Transport methods, including Schrödinger Bridges and Normalizing Flows.
- ✔ Bayesian modeling, including Political Science and Bioinformatics.
- ✔ Bayesian machine learning, including Gaussian processes and hierarchical modeling.

Work Experience

-  **Consultant.** *PreMedica, Inc., Tokyo, Japan.* 2024.9 – today
Provided Bayesian data analysis solutions for clients in the healthcare industry.
-  **Research Assistant.** *The Institute of Statistical Mathematics, Tokyo, Japan.* 2023.7 – today
Contributed to the R package YUIMA, an open-source project aiming to simulate and infer multidimensional stochastic differential equations, with an emphasis on Bayesian inference.
-  **Cooperative Researcher.** *RCAST, the University of Tokyo, Japan.* 2023.4 – today
Research on trustworthy AI and machine learning from the viewpoint of economic security.
-  **Data Scientist.** *IMIS Co., Ltd.* 2022.8 – 2024.1
Provided statistical analysis and machine learning solutions for clients in the manufacturing industry.

Education

-  **Ph.D. in Statistical Science.** *Graduate University for Advanced Studies, SOKENDAI, Tokyo, Japan.* 2023.4 – 2028.3
Supervisor: [Kengo Kamatani](#) and [Keisuke Yano](#)
-  **B.A. in Mathematics.** *The University of Tokyo, Japan.* 2019.4 – 2023.3
Supervisor: [Nakahiro Yoshida](#)

Research Stay

 **University College London**, United Kingdom.
Supervisor: Alexandros Beskos

2024.11.4 – 2024.12.2