Naoya Fujiwara PhD (Informatics, Kyoto Univ.)

Associate Professor, Graduate School of Information Sciences, Tohoku University, Japan

PRESTO, Japan Science and Technology Agency (JST), Japan

Research Fellow, Institute of Industrial Science, The University of Tokyo, Japan

Visiting Researcher, Center for Spatial Information Science, The University of Tokyo, Japan

Research interest: I work on the human mobility data analysis (4), mathematical models of infectious diseases (2), and relationship between human mobility and epidemic spreading (1,3). In this project, social surveys on human contacts are carried out in the urban area, and the results are compared with the contact patterns estimated from big human mobility data such as GPS data. Mathematical models on the spread of infectious diseases, in which the contact patterns are consistent with those in the social survey, are constructed, and simulations in various geographical scales are carried out. The simulation results are compared with the empirical analyses of the epidemiological data. The simulation results are expected to be understood theoretically.

Selected publications:
1. Tsuboi et al., **PLOS ONE** 17(10), e0276741 (2022).
2. Fujiwara et al., **BMC infectious diseases** 22(1), 512 (2022).
3. Yabe et al., **Scientific Reports** 10(1), 18053 (2020).
4. Fujishima et al., **International Journal of Economic Theory** 16(1), 38-50 (2020).