Bio – Ruiyun Li

I am an interdisciplinary scholar. My expertise is uniquely positioned at the intersection of earth system science and population health. I got PhD in Global Environmental Change in Beijing Normal University and trained in mathematical epidemiology in Imperial College London and Columbia University. I have engaged extensively with methodological innovation to understand how environmental drivers—such as climate variability, ecological change, land use, and air pollution—govern the spatiotemporal dynamics of infectious diseases and shape public health outcomes. My interdisciplinary work contribute to establishing innovative model-inference frameworks that could be leveraged to infer disease dynamics and optimize intervention strategies. These studies published in top journals such as Science, Science Advances, Nature Cities PNAS.

I lead the Ecology and Spatial Epidemiology research group. We focus on the integration of multidisciplinary datasets and in studies dedicated to the effect of key spatial factors (e.g., climatic, ecological or anthropogenic variables) on the emergence, spread and evolution of infectious diseases. We also work toward the development and application of spatial modelling approaches for disease dynamics, risk mapping and prediction. The Group is also involved in the scientific consultation and service, and science communication for disease prevention, surveillance and control.