

CFP AAG 2022

Spatiotemporal disease mapping and analysis

Mapping disease incidence/prevalence and identifying risk factors have been longstanding areas of interest in public health and spatial epidemiology. The emergence of the COVID-19 pandemic has stimulated extensive research in spatiotemporal disease mapping and analysis, including a flood of dashboard visualizing disease spread over space and time via Web and mobile applications. With innovations in data acquisition and dissemination, and with methodological advances in analyzing complex longitudinal data, contemporary disease mapping research has been increasingly focused on understanding how health varies across space, time, socioeconomic, and demographic groups. There are, however, a number of unresolved and challenging methodological issues in mapping and analyzing spatiotemporal health outcomes and behaviours, including but not limited to:

- Sparse data and noise (e.g., zero-inflation)
- Spatiotemporally misaligned data analysis
- Multiscale modeling
- Spatially and temporally varying regression modeling
- Multivariate modeling of more than one health outcome
- Missing data and imputation
- Spatiotemporal cluster detection
- Disease surveillance
- Uncertainty modelling and quantification
- Human mobility and social distancing in disease spreading
- Geoprivacy
- Geovisual analytics of disease patterns

This session welcomes submissions that address one of these topics (or a related topic). It is part of **the Geospatial Health Symposium**.

Sponsor groups: Health and Medical Geography Specialty Group; Spatial Analysis and Modeling Specialty Group; Geographic Information Science and Systems.

If you are interested in joining this session, please email your name, organization, AAG PIN, talk title, abstract (<=250 words), and contact information to the following organizers by Oct 19, 2021:

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Both in-person and virtual submissions will be accommodated.