DATE: October 7, 2021

TIME: 1:30-3:00pm

TITLE: *Modeling the spread of COVID-19 with large-scale dynamic mobility networks*

SPEAKER: Pang Wei Koh
PhD Student, Computer Science
Stanford

Abstract:
We develop epidemiological models on top of dynamic mobility networks, derived from US cell phone data, that capture the hourly movements of millions of people from local neighborhoods to points of interest such as restaurants, grocery stores, or religious establishments. These models correctly predict higher infection rates among disadvantaged racial and socioeconomic groups, and enable fine-grained analysis of disease spread that can inform more effective and equitable policy responses to COVID-19.

*This presentation is based on joint work with Serina Chang, Emma Pierson, Jaline Gerardin, Beth Redbird, David Grusky, Jure Leskovec, and many others.

Suggested Reading:

- Holmdahl and Buckee, [Wrong but Useful — What Covid-19 Epidemiologic Models Can and Cannot Tell Us](#)
- Buckee et al., [Aggregated mobility data could help fight COVID-19](#)
- Reeves and Rothwell, [Class and COVID: How the less affluent face double risks](#)

*Because the Biostatistics Workshop doubles as a class, the current university response to the pandemic requires us to restrict in-person attendance to Stanford students, faculty and staff. We hope to be able to revise these restrictions soon and welcome back all our biostatistics workshop community.*