

# Epidemics

Quantitative Biosciences Online Hands-on Modeling Workshop  
Georgia Institute of Technology - Virtually  
May 17-18, 2021

## Instructors:

Prof. [Joshua Weitz](#), Prof. [James C. Gumbart](#), and the members of the 2020 QBioS PhD cohort (Lynn Jin, Ethan Wold, Leo Wood, Disheng Tang, Aradhya Rajanala, Aaron Pfennig, and Tucker Lancaster).

## Plenary Lecturers:

Prof. [Sarah Cobey](#), Department of Ecology & Evolution, University of Chicago  
Prof. [Sam Scarpino](#), Network Science Institute, Northeastern University

All times are given in Eastern Daylight Time (EDT)

## Schedule Monday, May 17

- 8:45 Welcome to the Workshop - Prof. [Joshua Weitz](#), School of Biological Sciences, Georgia Tech & Prof. [James C. Gumbart](#), School of Physics, Georgia Tech
- 9:00 Plenary Lecture – Modeling COVID-19: what went wrong and right, and what's next – Prof. [Sarah Cobey](#), Department of Ecology & Evolution, University of Chicago
- 10:00 Q&A
- 10:15 Break
- 10:30 **Track 1: Introduction to programming**  
**Track 2: Journal club discussion for more advanced programmers**
- 12:00 Lunch Break
- 13:00 **Hands-on Modeling Epidemics I: Deterministic Models**
- 15:00 **Wrap-up day 1**

## Schedule Tuesday, May 18

- 9:00 **Lecture: Stochastic Modeling of Epidemics – Prof. [Joshua Weitz](#), School of Biological Sciences, Georgia Tech**
- 10:00 Q&A
- 10:15 Break
- 10:30 **Hands-on Modeling Epidemics II: Stochastic Models**
- 12:00 Lunch Break
- 13:00 **Translating models into Dashboards - Applied Bioinformatics Laboratory ([ABiL](#))**
- 15:00 Survey (Lottery among all participants)
- 15:15 Break
- 15:30 **Plenary Lecture - Network Science Theory and COVID-19 – Prof. [Sam Scarpino](#), Network Science Institute, Northeastern University**
- 16:30 Prize announcement of survey lottery
- 16:45 **Closing thoughts**
- 17:00 Workshop closes

We thank the [Burroughs Wellcome Fund](#) for making this workshop possible and the [Applied Bioinformatics Laboratory \(ABiL\)](#) for organizing the dashboard session.