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Department of Medicine
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Channing Network Science Seminar

April 29th (Friday), 2022, 11AM (ET)

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Uncertain Network Science: Existing Methods and Next Steps

Abstract: A large body of recent work in network science deals with errors in network data. In this seminar, I will present a Bayesian framework for handling such errors that can be applied to empirical data in any format, even when the data contain substantial measurement error and when the nature and magnitude of that error is unknown. The output of this framework is an estimate of the structure of a network from imperfect data. I will then survey several applications where uncertainty makes a big difference, from network epidemiology to network ecology, and discuss model extensions and future research directions.

Bio: Dr. Jean-Gabriel Young is an Assistant Professor of Statistics at The University of Vermont, VT, USA. He is also a faculty of the Translational Global Infectious Diseases Research Center and the Vermont Complex Systems Center. His research is at the intersection of statistical inference, epidemiology, and complex systems. He obtained his Ph.D. in Physics from Université Laval and spent a few years as a James S. McDonnell Foundation Fellow at the Center for the Study of Complex Systems of the University of Michigan.

Hosted by Can Chen and Yang-Yu Liu