



THE UNIVERSITY OF CHICAGO

Department of Statistics

STATISTICS COLLOQUIUM

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“Large-Scale Structure in Complex Networks”

MONDAY, February 13, 2017, at 4:00 PM

Eckhart 133, 5734 S. University Avenue

Refreshments following the seminar in Jones 111

ABSTRACT

Many systems of interest in science and engineering can be represented as networks, including the internet, the power grid, transport networks, metabolic networks, ecological networks, and social networks. As large-scale data on these networks has become available in the last few years, a new science of networks has grown up combining observations and theory, especially drawing from statistics, machine learning, and statistical physics, to shed light on systems ranging from bacteria to the whole of human society. This talk will give an introduction to this rapidly-growing interdisciplinary branch of science, focusing particularly on methods for quantifying and understanding the large-scale structure of networks, including core-periphery structure, hierarchical structure, ranking, latent-space structure, and especially community structure.