



THE UNIVERSITY OF CHICAGO

Departments of Computer Science, Mathematics, Statistics, and the Computation Institute
SCIENTIFIC AND STATISTICAL COMPUTING SEMINAR

JOEL E. COHEN

Laboratory of Population, Rockefeller University,
and Department of Earth and Environmental Sciences,
Columbia University

Taylor's Power Law of Fluctuation Scaling: Examples and Theories

THURSDAY, January 30, 2014, at 4:30 PM
Eckhart 133, 5734 S. University Avenue

ABSTRACT

In a surprising variety of situations, the variance of a sample of nonnegative observations is proportional to a positive power of the mean of the sample. I will give examples of this power-law relationship between the variance and mean from plant and animal ecology, cell biology, genetics, human demography, meteorology, stock market trading, and number theory. I will then describe some of the many theories that have been proposed to account for and interpret this power-law relationship.

Organizers:

Lek-Heng Lim, Department of Statistics, lekheng@galton.uchicago.edu,
Ridgway Scott, Departments of Computer Science and Mathematics, ridg@cs.uchicago.edu,
Jonathan Weare, Department of Statistics and The James Franck Institute, weare@uchicago.edu.
SSC Seminar URL: http://www.stat.uchicago.edu/seminars/SSC_seminars.shtml

If you wish to subscribe to our email list, please visit the following website:
<https://lists.uchicago.edu/web/arc/statseminars>.