

1020-60-99

Wei Biao Wu* (wbwu@uchicago.edu), Statistics Department, University of Chicago, 5734 S University Ave, Chicago, IL 60637, and **Zhibiao Zhao** (zhao@galton.uchicago.edu), Statistics Department, University of Chicago, Chicago, IL 60637. *Moderate deviations for stationary processes*. Preliminary report.

In the talk I will present an asymptotic expansion for probabilities of moderate deviations for stationary processes. The imposed dependence conditions are easily verifiable and they are directly related to the data-generating mechanism of the underlying processes (cf Wu (2005), Nonlinear system theory: Another look at dependence. Proc Natl Acad Sci USA. 102). The results are applied to functionals of linear processes and nonlinear time series. This work is joint with Zhibiao Zhao. (Received August 18, 2006)