

High-Dimensional  
Non-Stationary Time Series Analysis



# IRTG 1792 Short Course

Henry Horng-Shing Lu

## Network Analysis of Big Data

One great challenge of big data research is to efficiently and accurately identify the inherent complex network structure. We will discuss possible approaches to reconstruct Boolean networks. Specifically, we will prove that  $O(\log n)$  state transition pairs are sufficient and necessary to reconstruct the time delay Boolean network of  $n$  nodes with high accuracy if the number of input genes to each gene is bounded. Future developments of methodologies and computation systems for big data researchers will also be discussed.

20.05.2015 | 10:00-12:30

WIAS



*Henry Horng-Shing Lu obtained his Ph.D. in Statistics from Cornell University in 1994. Now he is a Professor at the Institute of Statistics, National Chiao Tung University. His fields of research interests include scientific computing, image science, bioinformatics etc.*

<http://irtg1792.hu-berlin.de>

