PROBABILITY SEMINAR

TOPIC: **Adaptive Nonparametric Estimation by Selection of Estimators**

SPEAKER: **Alexander Goldenshluger, Visiting Professor of Mathematics and Statistics, NYU Shanghai**

TIME: 13:45-14:45, 4 December 2014

VENUE: Room 357, Geography Building, 3663 Zhongshan Road North, Shanghai
(中山北路校区，地理楼 357 室)

ABSTRACT OF THE TALK

This talk is about adaptive nonparametric estimation of regression functions, signals and probability densities. We consider the minimax setting when the function to be estimated belongs to a functional class, and the goal is to construct a rate optimal minimax estimator. We will show how to develop adaptive estimators which are simultaneously rate optimal minimax over a broad scale of functional classes. The construction is based on data-driven selection of an estimator from a fixed family of estimators. The selection procedures will be illustrated using simple problem instances.

BIOGRAPHY

Alexander Goldenshluger is visiting professor of mathematics and statistics at NYU Shanghai. He is also a professor in the Department of Statistics at the University of Haifa, Israel. His research interests are in the discipline of mathematical statistics and, in particular, in the area of nonparametric inference and statistical learning with emphasis on informational complexity issues.