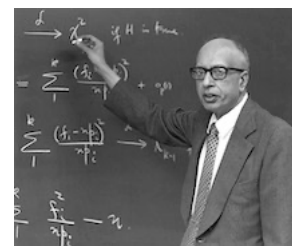


The University of Chicago, Department of Statistics

Bahadur Memorial Lectures

In honor of Raj Bahadur's fundamental contributions to statistics and to our department.



Emmanuel Candès

Stanford University

“Statistical Inference in the Age of AI”

Monday, April 29, 2024

4:30 PM, Jones Laboratory, Room 303, 5747 S Ellis Avenue

Abstract

From proteomics to remote sensing, AI powered predictions are beginning to substitute for real data when collection of the latter is difficult, slow, or costly. We present recent and ongoing work joint with Tijana Zrnica (Stanford University) that leverage machine learning predictions both as a substitute for high-quality data and as a tool for guiding real data collection. In both cases, we achieve a significant boost in accuracy and power compared to classical methods.

Bio: Emmanuel Candès is the Barnum-Simons Chair in Mathematics and Statistics at Stanford University, and Professor of Electrical Engineering (by courtesy). His research interests lie at the interface of statistics, information theory, signal processing and computational mathematics. He received his Ph.D. in statistics from Stanford in 1998. Candès has received several awards including the Alan T. Waterman Award from NSF, which is the highest honor bestowed by NSF to early-career scientists, and the MacArthur Fellowship, popularly known as the ‘genius award’. He has given over 90 plenary lectures at major international conferences, not only in mathematics and statistics but in many other areas as well including biomedical imaging and solid-state physics. He was elected to the National Academy of Sciences and to the American Academy of Arts and Sciences in 2014. He received the 2020 Princess of Asturias Award for Technical and Scientific Research.