

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
FACULTY OF ENGINEERING

Website: <https://cde.nus.edu.sg/ece>

Area: Signal Analysis & Machine Intelligence

Host: Assoc Prof Robby Tantowi

Teaching Webinar

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| TOPIC | : | Probability Theory: Basic Concentration Inequality And Law Of Large Numbers |
| SPEAKER | : | Dr Bu Yuheng Postdoctoral Research Associate Institute for Data, Systems, and Society (IDSS) |
| DATE | : | Thursday, 27 January 2022 |
| TIME | : | 10.00AM to 10.55AM |
| WEBINAR | : | Join Zoom Meeting https://nus-sg.zoom.us/j/4156763801?pwd=NUwzUWhwdlZlcGt3cmhyTzFld1V0QT09 Meeting ID: 415 676 3801 Passcode: 662108 |

ABSTRACT

This lecture will cover basic concentration inequalities, e.g., Markov inequality, Chebyshev inequality, and Chernoff bound. With these tools, this lecture aims to formally introduce and prove the (weak) law of large numbers, which states that the average results obtained from a large number of trials should be close to its expected value. I will conclude the lecture with applications and comparisons of the concentration inequalities we discussed.

BIOGRAPHY

Yuheng Bu received the B.S. degree (Hons.) in electrical engineering from Tsinghua University in 2014 and the Ph.D. degree in electrical and computer engineering from the University of Illinois at Urbana Champaign in 2019. Since September 2019, he has been a Postdoctoral Research Associate with the Institute for Data, Systems, and Society (IDSS) and the Research Laboratory of Electronics (RLE) at the Massachusetts Institute of Technology. His research interests lie in the intersection of information theory, signal processing, and machine learning.

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