NYU-ECNU
Institute of Mathematical Sciences
at NYU Shanghai

PROBABILITY SEMINAR SERIES

TOPIC: **The Maximum of the Riemann Zeta Function in a Short Interval of the Critical Line**

SPEAKER: **Louis-Pierre Arguin, City University of New York**

TIME: **1:00pm-1:45pm, Tuesday, April 17, 2018**

VENUE: **Room 264, Geography Building, Zhongbei Campus**
(华东师范大学中山北路校区，地理楼 264 室)

ABSTRACT OF THE TALK

A conjecture of Fyodorov, Hiary and Keating states that the maxima of the modulus of the Riemann zeta function on an interval of the critical line behave similarly to the maxima of a log-correlated process. In this talk, we will discuss a proof of this conjecture to leading order, unconditionally on the Riemann Hypothesis. We will highlight the connections between the number theory problem and the probabilistic models including the branching random walk. We will also discuss the relations with the freezing transition for this problem. This is joint work with D. Belius (Zurich), P. Bourgade (NYU), M. Radizwill (McGill), and K. Soundararajan (Stanford).

BIOGRAPHY

Louis-Pierre Arguin is an Associate Professor of Mathematics at City University of New York. He received his Ph.D. from Princeton University in 2007. In 2011, he became Assistant Professor of Mathematics at the University of Montreal. He joined the faculty of Baruch College and the CUNY Graduate Center in 2014. His research interests are probability theory with a focus on problems arising from statistical mechanics. He was awarded the André-Aisenstadt prize in 2015 recognizing a young Canadian mathematician's outstanding achievement in pure or applied mathematics. His research is sponsored by the National Science Foundation since 2015.