1151-60-221   **Xin Sun*** (`xinsun@math.columbia.edu`), 29 W 65 STREET, APT 2C, APT 2C, NEW YORK, NY 10023. *Conformal embedding and percolation on the uniform triangulation.*

Following Smirnov's proof of Cardy's formula and Schramm's discovery of SLE, a thorough understanding of the scaling limit of critical percolation on the regular triangular lattice has been achieved. Smirnorv's proof in fact gives a discrete approximation of the conformal embedding which we call the Cardy embedding. In this talk I will present a joint project with Nina Holden where we show that the uniform triangulation under the Cardy embedding converges to the Brownian disk under the conformal embedding. Moreover, we prove a quenched scaling limit result for the critical percolation on uniform triangulations. Time permitting, I will also explain how this result fits into the larger picture of random planar maps and Liouville quantum gravity. (Received August 19, 2019)