时间：2022.12.1. 15:00-16:00 am (Beijing time).

腾讯会议：832-3835-0005

报告人：刘明昶 (清华大学)

题目：Piecewise Temperleyan dimers and hypergeometric SLE

摘要：The dimer model is one of the simplest but also most intriguing models of statistical mechanics. It is typically studied through its height function, which turns the dimer model into a model of random surfaces. The main question is its large scale behaviour. A remarkable conjecture of Kenyon and Okunkov predicts that the large scale behaviour is in great generality described by the Gaussian free field. This conjecture was proved by Kenyon in the case of Temperleyan boundary conditions. We generalized this result to the piecewise Temperleyan and simply connected domains. Our method is based on considering the spanning tree associated to this model via Temperley' s bijection. As a byproduct, we showed that the hypergeometric SLE_8 (hSLE_8) reduces to a more standard $\mathrm{SLE}_8(\rho)$ conditional on the hitting point. This talk is based on a joint work with Nathanaël Berestycki.