The Hong Kong University of Science and Technology

Department of Mathematics

<u>Seminar on Probability</u>

The Lyons-Peres conjecture

By

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<u>Abstract</u>

I will explain the Lyons-Peres conjecture in the theory of determinantal point processes (DPP). This conjecture asks certain completeness of a DPP with orthogonal projection correlation kernel. In a particular case, it asks whether almost surely the random set of zeros of the Gaussian random analytic function is the set of uniqueness for Bergman space. Recently, in a joint work with Alexander Bufetov and Alexander Shamov, we solve completely the Lyons-Peres conjecture. Our method is based on proving the existence and a new local property of conditional correlation kernels for conditional DPP.

Date: *Thursday,21 December, 2017*

Time: *3:30p.m.-4:30p.m.*

Venue: *Room 4472, Academic Building,*
              (near Lifts 25&26), HKUST

All are welcome!