THE UNIVERSITY   OF HONG KONG

Institute of Mathematical Research
Department of Mathematics

PROBABILITY AND
INFORMATION THEORY SEMINAR

Information Theory of Wireless Communications, Shannon Capacity and Painlevé V

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Abstract:

In this talk, I give an introduction to problems regarding the information theory of wireless, and show that the moment generating function of the Shannon capacity, intimately related to a particular Hankel determinant, can be describe in terms of a Painlevé V. In a certain double scaling, we obtain the moment generating function for the effectively infinite dimensional situation.

Date: May 21, 2015 (Thursday)

Time: 3:00 – 4:00pm

Place: Room 210, Run Run Shaw Bldg., HKU

All are welcome