

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

PROBABILITY AND INFORMATION THEORY SEMINAR

Two polyhedral combinatorics problems from network information theory

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Abstract

Polyhedral combinatorics refers to the problems of establishing the equivalence between a parametric description and a (canonical) half-space representation of a given (high dimensional) polyhedron. This talk discusses two polyhedral combinatorics problems arising naturally from the context of network information theory: one on characterizing the latency capacity region of broadcast channels, and the other on characterizing the symmetrical projections of the entropy regions. These two examples highlight the fact that network information theory is not only an ample source of interesting polyhedral combinatorics problems, but also sheds important insight on the solutions of these problems.

Date: June 13, 2014 (Friday)

Time: 4:00 – 5:00pm

Place: Room 309, Run Run Shaw Bldg., HKU

All are welcome