

Department Colloquium

Speaker: Lin Song, Queen's University

Date: Friday, November 27

Time: 2:30 p.m.

Place: Jeffery 234

Title: Capacity of Communication Networks

Abstract: Network information theory deals with the fundamental limits of communication networks and their corresponding achievable coding schemes. It extends Shannon's fundamental theorems for point-to-point communication to the general multiuser setting. Although the theory is far from complete, many elegant results have been developed. In this talk, some of these results will be presented. We start from Shannon's capacity theorem for point-to-point communication channels, and then we discuss point-to-point communication with feedback, followed by discussions on multiple access channels, broadcast channels and new preliminary results for two-way networks.