



DEPARTMENTAL COLLOQUIUM

FRIDAY JANUARY 26TH

IN HUME 321

AT 3PM

GRAPH MINORS AND TOPOLOGICAL MINORS

CHUN-HUNG LIU
DEPARTMENT OF MATHEMATICS
PRINCETON UNIVERSITY

Abstract:

Minors and topological minors are two closely related graph containment relations that have attracted extensive attention in graph theory. Though giant breakthroughs have been made over the past several decades, several questions about these two relations remain open, especially for topological minors. This talk addresses part of our recent work in this direction, including a proof of Robertson's conjecture about well-quasi-ordering graphs by the topological minor relation, a complete characterization of the graphs having the Erdos-Posa property with respect to topological minors which answers a question of Robertson and Seymour, and a proof of Thomas' conjecture on half-integral packing. More open questions, such as Hadwiger's conjecture on graph coloring and its variations and relaxations, will be discussed in this talk.