

RYERSON UNIVERSITY  
DEPARTMENT OF MATHEMATICS  
GRAPHS AT RYERSON (G@R) SEMINAR

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Date: Monday, September 18, 2017

Time: 11am

Location: ENG 210

**Clique Colouring of Binomial Random  
Graphs and Random Geometric Graphs**

**Abstract:**

A clique colouring of a graph is a colouring of the vertices so that no maximal clique is monochromatic (ignoring isolated vertices). The smallest number of colours in such a colouring is the clique chromatic number. We study the asymptotic behaviour of the clique chromatic number of the random graph  $G(n, p)$  for a wide range of edge-probabilities  $p = p(n)$ . We see that the typical clique chromatic number, as a function of the average degree, forms an intriguing step function. Moreover, we also study random geometric graphs.

ALL FACULTY, STAFF, STUDENTS AND GUESTS ARE WELCOME TO ATTEND