1037-57-281 **Iain Moffatt***, Combinatorics and Optimization, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada. *The Tutte polynomial in knot theory.*

In this talk I will give an overview of various connections between the Tutte polynomial and its generalizations and polynomial invariants of knots.

I will begin by reviewing well known relations between the Tutte polynomial of a plane graph and the Jones and HOMFLY polynomials of a knot. I will then go on to discuss several ways Bollobas and Riordan's recently defined ribbon graph polynomial (which was motivated by very different knot theoretical considerations) has been used to extend these results. Finally I will outline connections between the graph polynomials and Khovanov homology. (Received February 04, 2008)