Mathematics and Mathematics Education

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A survey of Tutte-Whitney polynomials

Professor Graham Farr, Monash University

Date: Tuesday, Feb. 16, 2016
Time: 3:30-4:30pm
Venue: NIE 7-03-16 (MME Journal room)

Abstract: The Tutte-Whitney polynomial of a graph is a two-variable polynomial that contains a lot of interesting information about the graph. It includes, for example, the chromatic, flow and reliability polynomials of a graph, the Ising and Potts model partition functions of statistical mechanics, the weight enumerator of a linear code, and the Jones polynomial of an alternating link.

About the speaker: Graham Farr is a professor at the Faculty of Information Technology (IT), Monash University. He did his doctorate in Mathematics at the University of Oxford, and he is a Fellow of the Australian Mathematical Society.   His main research interests are in Combinatorics, Algorithms, their complexity, Discrete Optimizations and Information theory and inductive inference. He has published around 50 book chapters and papers. He was the head at Caulfield School of IT of Monash University during 2005-2008, the director of the Higher Degrees by Research at Clayton School of IT of Monash University during 2010-2012 and the head at Clayton School of IT of Monash University during 2012-2015.

All are Welcome!

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