

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

Dr. Peter Danziger

Department of Mathematics, Ryerson University

Date: Friday, May 11, 2018

Time: 3pm

Location: ENG 288

Hamilton-Waterloo

Abstract:

Given a graph G , a C_n -factor is a spanning subgraph of G each component of which is isomorphic to the n -cycle C_n . A factorization of G is a set of factors that between them partition the edges of G . Let K_v^* be the complete graph on v vertices if v is odd and $K_v - I$, where I is a 1-factor, when v is even.

Given non-negative integers v, m, n, α, β , the Hamilton-Waterloo problem, $\text{HWP}(v; m, n; \alpha, \beta)$, asks for a factorization of K_v^* , or, into α C_m -factors and β C_n -factors. Clearly, $v, n, m \geq 3$ must be odd, $m \mid v, n \mid v$ and $\alpha + \beta = (v - 1)/2$ are necessary conditions. Without loss of generality we may assume that $n \geq m \geq 3$.

I will talk about recent developments in the field.

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