

Lethbridge Number Theory and Combinatorics Seminar

Monday — September 18, 2017

Room: C630

Time: 12:00 to 12:50 p.m.

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Nearly supersolvable groups and Artin's conjecture

Abstract: Let K/k be a Galois extension of number fields with Galois group G , and let ρ be a non-trivial irreducible representation of G of dimension n . The Artin holomorphy conjecture asserts that the Artin L -function attached to ρ extends to an entire function.

It is well-known that when $n = 1$, this conjecture follows from Artin reciprocity. Also, by the works of Langlands and many others, we know that this conjecture is valid for $n = 2$ under certain conditions. However, in general, the Artin holomorphy conjecture is wildly open.

In this talk, we will discuss how elementary group theory plays a role in studying the Artin holomorphy conjecture and introduce the notion of “nearly supersolvable groups”. If time allows, we will explain how such groups lead to a proof of the Artin holomorphy conjecture for Galois extensions of degree less than 60.

EVERYONE IS WELCOME!

Visit the seminar web page at
<http://www.cs.uleth.ca/~nathanng/ntcoseminar/>