Lethbridge Number Theory and Combinatorics Seminar

Monday — March 25, 2019
Room: D631
Time: 12:00 to 12:50 p.m.

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On the holomophy of adjoint L-function for GL(3)

L-functions associated with automorphic forms are vast generalizations of Riemann zeta functions and Dirichlet L-functions. Although the theory of L-functions play a fundamental role in number theory, it is still largely conjectural. If π is an irreducible cuspidal automorphic representation of GL_n over a number field F and $\tilde{\pi}$ is its dual representation, it is conjectured that the Dedekind zeta functions $\zeta_F(s)$ (which is the Riemann zeta function when $F = \mathbb{Q}$) "divides" the Rankin-Selberg L-function $L(s, \pi \times \tilde{\pi})$, i.e., the quotient $L(s, \pi \times \tilde{\pi})/\zeta_F(s)$ (which is called the adjoint L-function of π) should be entire. For $n = 2$, this conjecture was proved by Gelbart-Jacquet. In this talk, I will give a sketchy survey of constructions of some L-functions, including the Rankin-Selberg L-function $L(s, \pi_1 \times \pi_2)$, and report our recent work on the above conjecture when $n = 3$. This is a joint work with Joseph Hundley.

EVERYONE IS WELCOME!

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

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