

Lethbridge Number Theory and Combinatorics Seminar

Monday — February 1, 2016

Room: C630

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

Micah Milinovich

University of Mississippi

Fourier Analysis and the zeros of the Riemann zeta-function

Abstract: I will show how the classical Beurling-Selberg extremal problem in harmonic analysis arises naturally when studying the vertical distribution of the zeros of the Riemann zeta-function and other L -functions. Using this relationship, along with techniques from Fourier analysis and reproducing kernel Hilbert spaces, we can prove the sharpest known bounds for the number of zeros in an interval on the critical line and we can also study the pair correlation of zeros. Our results on pair correlation extend earlier work of P. X. Gallagher and give some evidence for the well-known conjecture of H. L. Montgomery. This talk is based on a series of papers which are joint with E. Carneiro, V. Chandee, and F. Littmann.

EVERYONE IS WELCOME!

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



Pacific Institute *for the*
Mathematical Sciences