

Lethbridge Number Theory and Combinatorics Seminar

Monday — October 1, 2018

Room: C630

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

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Distributions of polynomials of additive functions

How is the set of values of an arithmetic function distributed? In a seminal 1940 paper, Erdős and Kac answered this question for a class of additive functions satisfying certain mild hypotheses, a class which includes the number-of-prime-divisors function. Using ideas from both probability and number theory, they showed that the values of these additive functions tend toward a Gaussian normal distribution. In the intervening years, this “Erdős–Kac class” of additive functions has been broadened to include certain compositions of arithmetic functions, as well as arithmetic functions defined on natural sequences of integers, such as shifted primes and values of polynomials. In this talk, we will discuss recent joint work with Greg Martin (UBC) which further expands the Erdős–Kac class to include arbitrary sums and products of additive functions (satisfying the same mild hypotheses).

EVERYONE IS WELCOME!

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