



# Lethbridge Number Theory and Combinatorics Seminar

Monday — January 25, 2016

Room: C630

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

## Francesco Pappalardi

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### On never primitive points on elliptic curves

*Abstract:* The Lang–Trotter Conjecture for primitive points predicts an expression for the density of primes  $p$  for which a fixed rational point (not torsion) of a fixed elliptic curve defined on  $\mathbb{Q}$  is a generator of the curve reduced modulo  $p$ . After providing the definition of such a density in terms of Galois representations associated with torsion points of the curve, we will tell the short story of the contributions to the conjecture and provide examples of families of elliptic curves for which the conjecture holds for trivial reasons. This is the notion of “never primitive point.” The case of elliptic curves in complex multiplication will be discussed in greater detail. Part of the work is in collaboration of N. Jones.

**EVERYONE IS WELCOME!**

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



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