

Lethbridge Number Theory and Combinatorics Seminar

Monday — February 13, 2017

Room: B660

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

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Explicit results in prime number theory

Abstract: The prime number theorem, proven in 1896, is one of the first major theorems in analytic number theory. It provides estimates for prime counting functions. In 1962, Rosser and Schoenfeld gave a method to estimate the error term in the approximation of the prime counting function $\psi(x)$. Since then, progress on the numerical verification of the Riemann Hypothesis and widening the zero-free region of the Riemann zeta function have allowed numerical improvements of these bounds. In this talk, we present various new explicit methods such as introducing some smooth weights and establishing some zero density estimates for the Riemann zeta function. We also present some explicit results for primes in short intervals and for primes in arithmetic progressions.

EVERYONE IS WELCOME!

Visit the seminar web page at

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