Lethbridge Number Theory and Combinatorics Seminar

Monday — October 23, 2017
Room: C630
Time: 12:00 to 12:50 p.m.

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Sharper bounds for Chebyshev functions $\theta(x)$ and $\psi(x)$

Abstract: In this talk we report on some research projects from summer 2017 supported by NSERC-USRA. In the first part of the project, we surveyed all existing explicit results from the past 60 years on prime counting functions, with a special focus on $\theta(x)$ (counting $\log p$ for each prime $p \leq x$). In the second part, we provided new bounds for the Chebyshev function $\psi(x)$ based on a recent zero density result for the zeros of the Riemann zeta function (due to Kadiri-Lumley-Ng). Finally, we have established the current best results for the prime counting function $\theta(x)$ for various ranges of x.

(Joint work with Noah Christensen, Allysa Lumley, and Nathan Ng)

EVERYONE IS WELCOME!

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http://www.cs.uleth.ca/~nathanng/ntcoseminar/

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