# Lethbridge Number Theory and Combinatorics Seminar

Monday — October 24, 2016
Room: C756
Time: 12:00 to 12:50 p.m.

# Nathan Ng

## The sixth moment of the Riemann zeta function and ternary additive divisor sums

*Abstract:* Hardy and Littlewood initiated the study of the $2k$-th moments of the Riemann zeta function on the critical line. In 1918 Hardy and Littlewood established an asymptotic formula for the second moment and in 1926 Ingham established an asymptotic formula for the fourth moment. In this talk we consider the sixth moment of the zeta function on the critical line. We show that a conjectural formula for a certain family of ternary additive divisor sums implies an asymptotic formula for the sixth moment. This builds on earlier work of Ivic and of Conrey-Gonek.

**EVERYONE IS WELCOME!**

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

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