

# Lethbridge Number Theory and Combinatorics Seminar

Monday — March 18, 2019

Room: D631

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

## Lee Troupe University of Lethbridge Sums of divisors

What happens when you add up the divisors of an integer? This seemingly innocuous question has motivated mathematicians across the ages, from antiquity to the present day. In this talk, we'll survey some conjectures and results on the functions  $s(n)$ , the sum of the proper divisors of an integer  $n$ , and  $\sigma(n) = s(n) + n$ , the sum of all divisors of  $n$ . The ancient Greeks derived religious significance from certain values of these functions; we'll do no such thing in this talk. However, by asking simple questions whose answers turn out to be very complicated – if they're known at all – we will see that an air of mystery continues to surround these two fascinating functions. **The first half of this talk, at the very least, will be extremely accessible to everyone;** tell your students!

**EVERYONE IS WELCOME!**

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



Pacific Institute *for the*  
Mathematical Sciences