

MANY CHEERFUL FACTS

presents

Algebraic and Topological K-Theory

a talk by Dustin Cartwright

12:10 – 1:00pm on Wednesday, February 28, in room 1015.

I will introduce the basics of algebraic and topological K-theory. K-theory is an area of math rich in connections between algebra and topology. The theory is based on the study of two analogous structures: projective modules over a ring and vector bundles over a topological space. I will explain the parallels between these two versions of K-theory and give some examples of each. If time remains, I will give an introduction to the higher algebraic K-groups, which use a topological construction to define K-groups of a ring.

*I am the very model of a modern Major General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse!*

- Gilbert & Sullivan $P \circ P$

The website for Many Cheerful Facts is
<http://www.math.berkeley.edu/~slofstra/mcf>