

Monday, February 17, 2014, 4:00

SPECIAL COLLOQUIUM TALK

Speaker: Kate Kearney
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Old Main 2231

Knots, Concordance, and the Stable Concordance Genus

Abstract:

The concordance genus of a knot is the least threegenus of a knot concordant to the knot. The concordance genus is bounded below by the fourgenus (or slice genus), and bounded above by the threegenus. This makes the concordance genus a valuable tool to describe the difference between these invariants. In simple cases the concordance genus is not difficult to calculate, since there are a variety of algebraic tools that give bounds for the concordance genus. Unfortunately, as the crossing number increases, it becomes increasingly difficult to find concordances. In this talk we will review some basics of knot theory and concordance and lead to a discussion of the concordance genus as a tool for studying concordance of knots. The stable concordance genus, which we will also discuss in this talk, describes the behavior of the concordance genus of a given knot under connect sum. We will briefly define the invariant, give some examples of calculations, and discuss applications to the study of concordance.

SNACKS IN FACULTY LOUNGE AT 3:30 PM.
EVERYONE WELCOME (EVEN IF YOU ARE UNABLE TO ATTEND THE TALK)
