CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, September 16
2:00 – 3:00 PM
Maria Sanford, Room 101

DISTINGUISHING ONE TANGLED MESS FROM ANOTHER: AN INTRODUCTION TO KNOT POLYNOMIALS – PART II

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ABSTRACT

Knot theory is a booming field in mathematics, due largely to its applications in DNA untangling, statistical mechanics, molecular chemistry, and particle physics. One of the primary questions that arises when studying knots is distinguishing one from another; i.e., are two knots really the same if looked at from different angles or if their strands are slid around? We will open with the basics of knot theory and discuss the use of knot polynomials in answering the question of distinction. Specifically, we will introduce the bracket polynomial along with the Kauffmann and Jones polynomials if time permits, which are some of the earliest examples of knot polynomials. We will finish with a brief discussion of their history and applications.

This topic is surprisingly non-technical and requires no prior knowledge except basic algebra and a tolerance for the speaker's below-average drawing skills.

For further information:
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