Colloquium

Knot Polynomials in the Melvin-Morton-Rozansky Expansion of the Colored Jones Polynomial

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Abstract: Both the Alexander polynomial and the Jones polynomial are two well-known knot invariants. The Melvin-Morton conjecture, proved by Bar-Natan and Garoufalidis and further generalized by Rozansky, provides a relationship between these two invariants. The relationship appears when expanding the colored Jones polynomial in a certain way. Within this expansion, we get more polynomial invariants of the knot. During this talk, we will discuss some polynomial knot invariants including the Alexander polynomial and the colored Jones polynomial. Then we will describe the polynomial invariants appearing in the Melvin-Morton-Rozansky expansion for some simple knots and outline a method for computing them.

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Mathematics and Science Center: W301

Mathematics and Computer Science
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