Mathematics, Statistics, and Computer Science **@ UIC**

Quantum Topology / Hopf Algebra Seminar

Quantum Link Invariants

Louis Kauffman (UIC)

Abstract: Continuing. We have shown how to build a model for the bracket polynomial by using a matrix M with M^2 = I and the sum of the squares of the entries of M equal to the loop value for the invariant. We examine the solution to the Yang-Baxter equation that is produced by this model and we show how to generalize it to an arbitrary ordered index set and then use it to get infinitely many specializations of the Homflypt polynomial. We will use this as an opportunity to talk about skein polynomials. In the next talk we'll go back to the matrix M and relate it to representations of the Temperley Lieb algebra and show how it can be used to define the dual of the quantum group Sl(2)_{q}.

Tuesday, September 12 at 3:00 PM in SEO 612