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

Quantum Topology / Hopf Algebra Seminar

Knots and Infinitesimal Deformations

Ljubica S. Velimirovic (Faculty of Science and Mathematics, University of Nis, Serbia)

Abstract: In order to consider the shape of physical knots we study infinitesimal bending of knotted curves. Variations of the Willmore energy, the total curvature, the total torsion, as well as the total normalcy are obtained. Some examples are visualized.Higher order bending of knots is specified. We discuss the results we have obtained in collaboration with Louis Kauffman, Marija Najdanovic and Svetozar Rancic.

Tuesday, April 25 at 2:00 PM in SEO 612