

1114-57-57

**Louis H Kauffman\*** ([kauffman@uic.edu](mailto:kauffman@uic.edu)), Louis H Kauffman, Math UIC, 851 South Morgan Street, Chicago, IL 60607-7045. *Rotational Virtual Links and Quantum Link Invariants*. Preliminary report.

Rotational virtual knot theory is virtual knot theory without the first virtual move (thus one does not allow the addition or deletion of a virtual curl.) Another way to put this is to say that rotational virtual links use the Reidemeister moves plus detour moves that are restricted to be regular homotopies in the plane or in the two-sphere. Diagrams are usually represented in the surface of plane so that we can distinguish clockwise from counterclockwise rotations. The rotational version of virtual knot theory is significant because all quantum link invariants originally defined for classical links extend to rotational virtual knot theory. In this talk we give a number of examples of phenomena in the generalization of the bracket polynomial to rotational virtuals, and we discuss a number of other quantum link invariants in this context. (Received August 03, 2015)