

1116-57-1016 **Louis H Kauffman*** (kauffman@uic.edu), Math UIC, 851 South Morgan Street, Chicago, IL 60607-7045. *Rotational Virtual Links and Quantum Link Invariants*. Preliminary report.

Rotational virtual links are virtual links where the detour move is restricted to regular homotopy in the plane or on the 2-sphere. We prove that all classical quantum link invariants extend to rotational virtual links and we give numerous examples of specific invariants of rotational virtuals. We use rotational virtuals to study the limits of detection by quantum link invariants, giving examples of rotational virtual links that appear to be non-trivial but are not detected by quantum link invariants. (Received September 16, 2015)