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Louis H Kauffman* (kauffman@uic.edu), Louis H. Kauffman, Math UIC, 851 Morgan Street, Chicago, IL 60607-7045. *Virtual Knot Theory - State Sum Invariants*. Preliminary report.

This talk will discuss state sum invariants in virtual knot theory, including the bracket and arrow polynomials and their parity generalizations. We will also discuss extensions of quantum invariants defined via solutions to the Yang-Baxter equation to rotational virtual knot theory (where the first virtual move is forbidden). All quantum invariants for classical knots generalize to rotational virtual knot theory, and this raises questions about virtual braids and about link homology for rotational virtuals. (Received September 10, 2011)