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**Louis H Kauffman\*** ([kauffman@uic.edu](mailto:kauffman@uic.edu)), Math UIC, 851 South Morgan Street, Chicago, IL 60607-7045. *Khovanov Homology and Virtual Knot Theory*. Preliminary report.

This talk will discuss some applications of Khovanov Homology to virtual knot theory. In particular we will discuss joint work with Heather Dye and Aaron Kaestner where we generalize the Rasmussen Invariant to virtual knots and apply it to positive virtual knots. We also discuss a proof that virtual knots of unit Jones polynomial, obtained from classical non-trivial knots by virtualization are both non-trivial and non-classical. A remaining problem is to determine virtual genus of such knots. (Received February 13, 2015)