## 1163-57-780 Moshe Cohen\* (cohenm@newpaltz.edu) and Keith F. Grover. Random knots obtained from finite continued fractions in +1 and -1. Preliminary report.

A knot is a circle embedded in 3-space. A 2-bridge knot can be described by a finite sequence of nonzero integers counting crossings in alternating twist regions; such a knot is also called a rational knot. A Chebyshev knot diagram has in its finite continued fraction only +1 and -1, giving way to fewer knot diagrams for the same knot.

Schubert translated results on continued fractions into results on 2-bridge knots, and Koseleff and Pecker, in formalizing Chebyshev knots, built on these results for continued fractions in +1 and -1.

Together with Sunder Ram Krishnan and then Chaim Even-Zohar, the first author developed this into a model for random knots. In this talk the first author presents extensions of this work, including new work with the second author, an undergraduate student. (Received September 12, 2020)