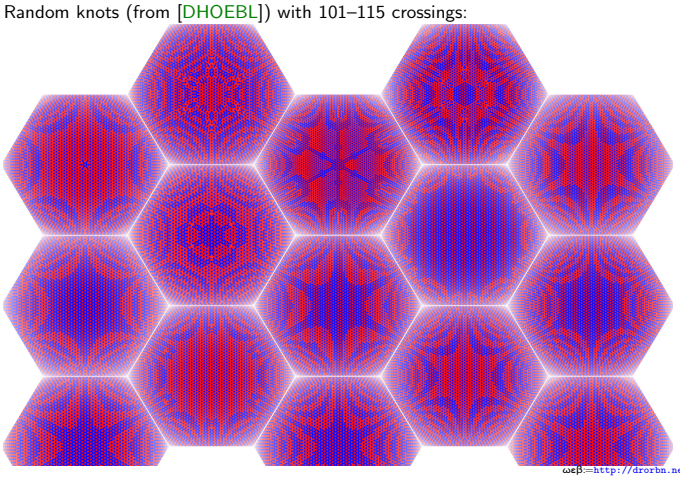
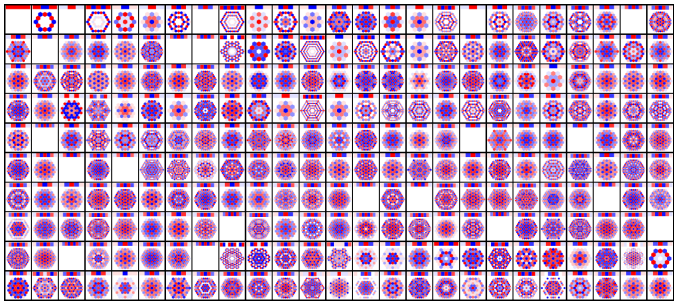
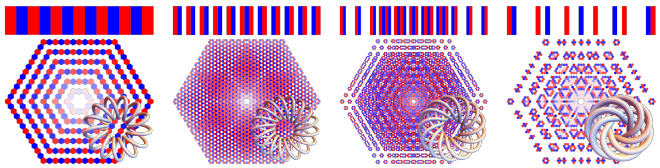
Random knots (from [DHOEBL]) with 101–115 crossings:

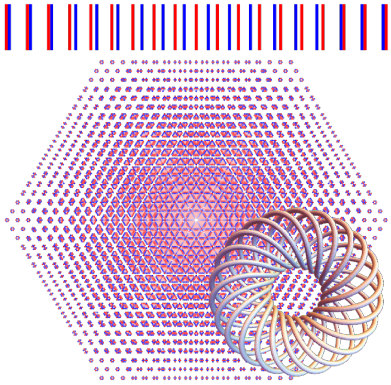


The Rolfsen Table:



The torus knots $TK_{13/2}$, $TK_{17/3}$, $TK_{13/5}$, and $TK_{7/6}$:





The torus knot $TK_{22/7}$:

Meaningful.

θ gives a genus bound (unproven yet with confidence). We hope (with reason) it says something about ribbon knots.

Convention.

T, T_1, and T_2 are indeterminates and $T_3 := T_1 T_2$.

Preparation. Draw an n-crossing knot K as a diagram D as on the right: all crossings face up, and the edges are marked with a running index $k \in \{1, \dots, 2n+1\}$ and with rotation numbers φ_k.

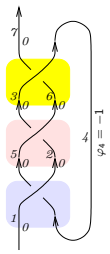
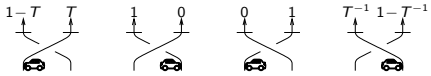


image credits: diamondtraffic.com

$p = 1 - T^s$

image credits: Dall-E

Model T Traffic Rules. Cars always drive forward. When a car crosses over a sign-s bridge it goes through with (algebraic) probability $T^s \sim 1$, but falls off with probability $1 - T^s \sim 0$. At the very end, cars fall off and disappear. On various edges traffic counters are placed. See also [Jo, LTW].



Video and more at http://www.math.toronto.edu/~drorbn/Talks/KnotTheoryCongress-2502.