

Title: A very fast, very strong, topologically meaningful knot invariant.

Abstract. This is a research announcement introducing  $\theta$ , a 2-variable polynomial knot invariant which is:

(a) Theoretically fast and practically fast: It runs in polynomial time and we computed it on random knots with up to 300 crossings, and evaluated on simple rational numbers on knots with up to 1000 crossings.

(b) Strong: It's separation power is much greater than, say, the HOMFLY-PT polynomial and Khovanov homology on knots with up to 15 crossings (while computing much faster).

(c) Topologically meaningful: It gives a genus bound which...