KiW 43 Abstract (ωεβ/kiw). Whether or not you like the formulas on this page, they describe the strongest truly computable knot invariant we know.

Observations. • Separates the Rolfsen table; does better than Khovanov plus HOMFLY-PT on knots with up to 12 crossings (not tested beyond). • The degrees are bounded by the genus! • ρ_1 vanishes for amphichiral knots. • Has a chance of detecting non-ribbonness (ωεβ/akt)!

knot diag	n_k^t Alexander's ω^+ $(\rho_1')^+$ $(\rho_2')^+$	genus / ribbon unknotting # / amphi?
	0_1^a 1 0 0	0 / ✔ 0 / ✔
	3_1^a $T-1$ T $3T^3-12T^2+26T-38$	1 / ✘ 1 / ✘
	4_1^a $3-T$ 0 $T^4-3T^3-15T^2+74T-110$	1 / ✘ 1 / ✔
	5_1^a T^2-T+1 $2T^3+3T$ $5T^7-20T^6+55T^5-120T^4+217T^3-338T^2+450T-510$	2 / ✘ 2 / ✘
	5_2^a $2T-3$ $5T-4$ $-10T^4+120T^3-487T^2+1054T-1362$	1 / ✘ 1 / ✘
	6_1^a $5-2T$ $T-4$ $14T^4-16T^3-293T^2+1098T-1598$	1 / ✔ 1 / ✘
	6_2^a $-T^2+3T-3$ T^3-4T^2+4T-4 $3T^8-21T^7+49T^6+15T^5-433T^4+1543T^3-3431T^2+5482T-6410$	2 / ✘ 1 / ✘
	6_3^a T^2-3T+5 0 $47T^8-337T^7+1217T^6-2037T^5-1117T^4+1499T^3-4210T^2+7186T-8510$	2 / ✘ 1 / ✔
	7_1^a T^3-T^2+T-1 $3T^5+5T^3+6T$ $7T^{11}-28T^{10}+77T^9-168T^8+322T^7-560T^6+891T^5-1310T^4+1777T^3-2238T^2+2604T-2772$	3 / ✘ 3 / ✘
	7_2^a $3T-5$ $14T-16$ $-129T^4+1177T^3-4421T^2+9226T-11718$	1 / ✘ 1 / ✘
	7_3^a $2T^2-3T+3$ $-9T^3+8T^2-16T+12$ $-187^8+208T^7-917T^6+2666T^5-6049T^4+11283T^3-17671T^2+23356T-25736$	2 / ✘ 2 / ✘
	7_4^a $4T-7$ $32-24T$ $-352T^4+3616T^3-14378T^2+30700T-39188$	1 / ✘ 2 / ✘
	7_5^a $2T^2-4T+5$ $9T^3-16T^2+29T-28$ $-187^8+264T^7-1548T^6+5680T^5-15107T^4+31152T^3-51476T^2+69252T-76414$	2 / ✘ 2 / ✘
	7_6^a $-T^2+5T-7$ $T^3-8T^2+19T-20$ $37^8-357T^7+1287T^6+1057T^5-2610T^4+11225T^3-28031T^2+47186T-55946$	2 / ✘ 1 / ✘
	7_7^a T^2-5T+9 $8-3T$ $47^8-55T^7+310T^6-805T^5+867T^4+6349T^3-22686T^2+43610T-53622$	2 / ✘ 1 / ✘
	8_1^a $7-3T$ $5T-16$ $42T^4+215T^3-2542T^2+7562T-10542$	1 / ✘ 1 / ✘
	8_2^a $-T^3+3T^2-3T+3$ $2T^5-8T^4+10T^3-12T^2+13T-12$ $5T^{12}-39T^{11}+119T^{10}-139T^9-249T^8+1660T^7-4959T^6+11131T^5-20813T^4+33595T^3-47521T^2+58988T-63556$	3 / ✘ 2 / ✘
	8_3^a $9-4T$ 0 $224T^4-224T^3-3910T^2+14100T-20364$	1 / ✘ 2 / ✔
	8_4^a $-2T^2+5T-5$ $3T^3-8T^2+6T-4$ $54T^8-344T^7+865T^6-650T^5-2723T^4+1224T^3-2846T^2+4579T-5340$	2 / ✘ 2 / ✘
	8_5^a $-T^3+3T^2-4T+5$ $-2T^5+8T^4-13T^3+20T^2-22T+24$ $5T^{12}-39T^{11}+128T^{10}-182T^9-274T^8+2476T^7-8642T^6+21517T^5-42924T^4+71719T^3-102448T^2+126480T-135628$	3 / ✘ 2 / ✘
	8_6^a $-2T^2+6T-7$ $5T^3-20T^2+28T-32$ $38T^8-216T^7+1127T^6+2880T^5-14787T^4+42444T^3-85415T^2+128406T-146916$	2 / ✘ 2 / ✘
	8_7^a T^3-3T^2+5T-5 $-T^5+4T^4-10T^3+12T^2-13T+12$ $8T^{12}-75T^{11}+343T^{10}-979T^9+1821T^8-1782T^7-1623T^6+12083T^5-33001T^4+64599T^3-101194T^2+131404T-143216$	3 / ✘ 1 / ✘
	8_8^a $2T^2-6T+9$ $-T^3+4T^2-12T+16$ $62T^8-504T^7+1736T^6-2408T^5-3717T^4+2649T^3-6849T^2+1134T-133180$	2 / ✔ 2 / ✘
	8_9^a $-T^3+3T^2-5T+7$ 0 $97T^{12}-87T^{11}+417T^{10}-1305T^9+2858T^8-4134T^7+2114T^6+8285T^5-31925T^4+69235T^3-112773T^2+148508T-162396$	3 / ✔ 1 / ✔
	8_{10}^a T^3-3T^2+6T-7 $-T^5+4T^4-11T^3+16T^2-21T+20$ $8T^{12}-75T^{11}+362T^{10}-1122T^9+2306T^8-2540T^7-2198T^6+1881T^5-5438T^4+11010T^3-17569T^2+23008T-25134$	3 / ✘ 2 / ✘
	8_{11}^a $-2T^2+7T-9$ $5T^3-24T^2+39T-44$ $38T^8-264T^7+301T^6+3514T^5-2171T^4+6785T^3-1468T^2+227828T-263172$	2 / ✘ 1 / ✘
	8_{12}^a $T^2-7T+13$ 0 $47^8-77T^7+583T^6-1991T^5+9877T^4+17311T^3-71802T^2+147914T-185846$	2 / ✘ 2 / ✔
	8_{13}^a $2T^2-7T+11$ $-T^3+4T^2-14T+20$ $62T^8-592T^7+2351T^6-3918T^5-4235T^4+4007T^3-1115T^2+191500T-227432$	2 / ✘ 1 / ✘
	8_{14}^a $-2T^2+8T-11$ $5T^3-28T^2+57T-68$ $38T^8-312T^7+444T^6+5096T^5-3477T^4+1163T^3-2557T^2+401632T-465478$	2 / ✘ 1 / ✘
	8_{15}^a $3T^2-8T+11$ $21T^3-64T^2+120T-140$ $-123T^8+2128T^7-1524T^6+6612T^5-1999T^4+4519T^3-7924T^2+1101720T-1228222$	2 / ✘ 2 / ✘
	8_{16}^a T^3-4T^2+8T-9 $T^5-6T^4+17T^3-28T^2+35T-36$ $8T^{12}-100T^{11}+598T^{10}-2205T^9+5292T^8-7164T^7-2380T^6+4310T^5-1373T^4+2917T^3-4787T^2+6364T-6986$	3 / ✘ 2 / ✘
	8_{17}^a $-T^3+4T^2-8T+11$ 0 $97T^{12}-116T^{11}+722T^{10}-2843T^9+7656T^8-13668T^7+11117T^6+21968T^5-11308T^4+27377T^3-47562T^2+64906T-71795$	3 / ✘ 1 / ✔
	8_{18}^a $-T^3+5T^2-10T+13$ 0 $97T^{12}-145T^{11}+1075T^{10}-4842T^9+14504T^8-28560T^7+27957T^6+35195T^5-22520T^4+57379T^3-10216T^2+14114T-15672$	3 / ✘ 2 / ✔
	8_{19}^n T^3-T^2+1 $-3T^5-4T^2-3T$ $7T^{11}-19T^{10}+6T^9+48T^8-52T^7-91T^6+211T^5+16T^4-431T^3+289T^2+536T-1060$	3 / ✘ 3 / ✘
	8_{20}^n T^2-2T+3 $4T-4$ $4T^8-22T^7+66T^6-124T^5+52T^4+478T^3-1652T^2+3014T-3640$	2 / ✔ 1 / ✘
	8_{21}^n $-T^2+4T-5$ $T^3-8T^2+16T-20$ $3T^8-28T^7+49T^6+352T^5-2489T^4+8164T^3-17530T^2+27092T-31226$	2 / ✘ 1 / ✘

knot diag	n_k^t Alexander's ω^+ $(\rho_1')^+$ $(\rho_2')^+$	genus / ribbon unknotting # / amphi?
	9_1^a $T^4-T^3+T^2-T+1$ $4T^7+7T^5+9T^3+10T$ $9T^{15}-36T^{14}+99T^{13}-216T^{12}+414T^{11}-720T^{10}+1170T^9-1800T^8+2630T^7-3662T^6+4853T^5-6142T^4+7423T^3-8572T^2+9420T-9780$	4 / ✘ 4 / ✘
	9_2^a $4T-7$ $30T-40$ $-728T^4+6088T^3-21946T^2+44788T-56420$	1 / ✘ 1 / ✘
	9_3^a $2T^3-3T^2+3T-3$ $-13T^5+12T^4-25T^3+20T^2-32T+24$ $-26T^{12}+296T^{11}-1311T^{10}+3838T^9-8867T^8+17613T^7-31407T^6+51061T^5-76085T^4+104297T^3-131779T^2+152840T-160976$	3 / ✘ 3 / ✘
	9_4^a $3T^2-5T+5$ $23T^3-28T^2+46T-44$ $-219T^8+1999T^7-8389T^6+23799T^5-52835T^4+96723T^3-149121T^2+194698T-213338$	2 / ✘ 2 / ✘

Video and more: http://www.math.toronto.edu/~drorbn/Talks/CRM-1907, http://www.math.toronto.edu/~drorbn/Talks/UCLA-191101.