Supplementary Materials: A Symmetry Motivated Link Table

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Table S1. Mean self-writhes of minimum step prime 2-component links with 9 or fewer crossings. Numbers based on all conformations found in the pending paper by *Freund et al.* [22]. All data is for the canonical link isotopy class shown in table A1.

Link	$\mathcal{S}_{\min}(L)$	$\mathcal{S}_{\min}(L,1)$	$\mathcal{S}_{\min}(L,2)$
0_1^2	0.0	0.0	0.0
2_1^2	0.0	0.0	0.0
4_1^2	0.8125	0.4063	0.4063
5_1^2	1.3492	0.6746	0.6746
6_1^2	1.65	0.825	0.825
6_2^2	0.0	0.0	0.0
6_3^2	1.9438	0.9719	0.9719
7_1^2	2.1636	1.0818	1.0818
7_2^2	0.7	0.35	0.35
7_3^2	2.4903	2.4427	0.0476
7_4^2	4.2553	4.1811	0.0743
7_5^2	2.3625	2.7563	−0.3937
7_6^2	1.4375	1.4375	0.0
7_7^2	3.5368	3.5368	0.0
7_8^2	3.0479	3.0479	0.0
8_1^2	2.597	1.2985	1.2985
8_2^2	0.8123	0.4062	0.4062
8_3^2	2.7172	1.3586	1.3586
8_4^2	0.8164	0.4082	0.4082
8_5^2	1.1765	0.5883	0.5883
8_6^2	3.1666	1.5833	1.5833
8_7^2	2.7215	1.3607	1.3607
8_8^2	0.0	0.0	0.0
8_9^2	0.9355	0.6021	0.3333
8_{10}^2	0.9525	0.7288	0.2236
8_{11}^2	4.6944	4.6667	0.0278
8_{12}^2	2.0538	2.2909	−0.237
8_{13}^2	2.1324	2.1324	0.0
8_{14}^2	3.0967	3.0967	0.0
8_{15}^2	0.2157	0.0	0.2157
8_{16}^2	0.5	0.5	0.0
9_1^2	2.8941	1.447	1.447
9_2^2	0.1111	0.0556	0.0556
9_3^2	3.3805	1.6903	1.6903
9_4^2	3.0645	1.5323	1.5323
9_5^2	1.3981	0.6991	0.6991
9_6^2	1.4	0.7	0.7
9_7^2	1.3925	0.6963	0.6963
9_8^2	1.7545	0.8773	0.8773
9_9^2	0.25	0.125	0.125
9_{10}^2	3.7033	1.8517	1.8517
9_{11}^2	3.2995	1.6625	1.6369
9_{12}^2	0.6007	0.3003	0.3003
9_{13}^2	7.2952	6.8843	0.4109
9_{14}^2	5.2603	5.4536	−0.1933
9_{15}^2	5.416	5.1609	0.255
9_{16}^2	3.75	3.85	−0.1
9_{17}^2	3.475	4.0375	−0.5625
9_{18}^2	5.4567	5.3384	0.1183
9_{19}^2	5.0661	4.2521	0.814
9_{20}^2	1.5936	2.4532	−0.8596
9_{21}^2	3.5098	4.1327	−0.6229
9_{22}^2	3.3149	3.3409	−0.026
9_{23}^2	0.2848	0.1424	0.1424
9_{24}^2	3.4834	1.7417	1.7417
9_{25}^2	1.2996	1.0981	0.2014
9_{26}^2	1.4789	1.1295	0.3494
9_{27}^2	5.2194	5.1917	0.0278
9_{28}^2	1.6508	1.6825	−0.0317
9_{29}^2	5.3492	5.7828	−0.4336
9_{30}^2	5.3474	4.9738	0.3736
9_{31}^2	4.2443	4.2443	0.0
9_{32}^2	2.7083	2.7083	0.0
9_{33}^2	2.75	2.75	0.0
9_{34}^2	0.5544	0.8803	−0.3259
9_{35}^2	2.227	2.0239	0.2032
9_{36}^2	0.2631	0.2631	0.0
9_{37}^2	1.275	1.275	0.0
9_{38}^2	1.5682	1.5682	0.0
9_{39}^2	3.4055	3.3163	0.0892
9_{40}^2	1.6981	2.1969	−0.4988
9_{41}^2	1.4257	1.0832	0.3425
9_{42}^2	0.9931	1.0069	−0.0139
9_{43}^2	6.2	6.2	0.0
9_{44}^2	5.9718	5.9718	0.0
9_{45}^2	4.6428	4.6396	0.0032
9_{46}^2	4.2077	4.2077	0.0
9_{47}^2	4.5319	4.535	−0.003
9_{48}^2	4.8315	4.7893	0.0422
9_{49}^2	3.9829	3.6718	0.3111
9_{50}^2	2.5914	2.9207	−0.3294
9_{51}^2	2.7063	2.7204	−0.0141
9_{52}^2	3.8318	3.8318	0.0
9_{53}^2	2.0343	1.0172	1.0172
9_{54}^2	1.3141	0.6571	0.6571
9_{55}^2	6.0315	6.0381	−0.0066
9_{56}^2	4.8282	4.8282	0.0
9_{57}^2	0.4678	0.882	−0.4142
9_{58}^2	1.9706	1.3676	0.6029
9_{59}^2	6.2428	6.2428	0.0
9_{60}^2	4.5041	4.5041	0.0
9_{61}^2	0.0	1.0	−1.0

Table S2. Table containing 95% confidence intervals for $\mathcal{S}_n(\mathrm{L}{+}{+})$, the mean sum of self-writhes for the canonical links, for lengths $n = 76$, 100, 150, 200, 250, and 300 based on BFACF simulations. Confidence intervals do not vary widely for different lengths. This supports the hypothesis that mean writhe is well-behaved as length increases.

L	$\mathcal{S}_{76}(L{+}{+})$	$\mathcal{S}_{100}(L{+}{+})$	$\mathcal{S}_{150}(L{+}{+})$	$\mathcal{S}_{200}(L{+}{+})$	$\mathcal{S}_{250}(L{+}{+})$	$\mathcal{S}_{300}(L{+}{+})$
2_1^2	[-0.013 0.007]	[-0.031 0.037]	[-0.039 0.103]	[-0.037 0.102]	[-0.212 0.255]	[-0.192 0.511]
4_1^2	[0.894 0.921]	[0.889 0.897]	[0.79 0.949]	[0.755 0.877]	[0.764 0.889]	[0.779 0.977]
5_1^2	[1.455 1.48]	[1.465 1.468]	[1.41 1.532]	[1.401 1.607]	[1.399 1.575]	[1.295 1.565]
6_1^2	[1.724 1.747]	[1.711 1.719]	[1.679 1.699]	[1.624 1.692]	[1.563 1.728]	[1.606 1.848]
6_2^2	[-0.01 0.013]	[-0.005 0.007]	[-0.025 0.015]	[-0.156 0.042]	[-0.048 0.068]	[-0.044 0.11]
6_3^2	[2.042 2.065]	[2.064 2.068]	[2.039 2.147]	[1.957 2.225]	[1.978 2.205]	[1.939 2.24]
7_1^2	[2.284 2.305]	[2.287 2.291]	[2.271 2.289]	[2.188 2.364]	[2.204 2.351]	[2.218 2.347]
7_2^2	[0.569 0.59]	[0.571 0.578]	[0.576 0.601]	[0.413 0.788]	[0.569 0.668]	[0.579 0.711]
7_3^2	[2.641 2.661]	[2.665 2.672]	[2.67 2.695]	[2.667 2.728]	[2.631 2.702]	[2.599 2.782]
7_4^2	[4.306 4.327]	[4.325 4.334]	[4.313 4.331]	[4.292 4.348]	[4.277 4.332]	[4.283 4.377]
7_5^2	[2.517 2.538]	[2.541 2.544]	[2.531 2.552]	[2.532 2.602]	[2.522 2.591]	[2.495 2.63]
7_6^2	[1.428 1.449]	[1.419 1.428]	[1.404 1.432]	[1.411 1.445]	[1.379 1.434]	[1.379 1.511]
7_7^2	[3.532 3.555]	[3.535 3.54]	[3.464 3.563]	[3.51 3.592]	[3.442 3.557]	[3.492 3.672]
7_8^2	[3.214 3.237]	[3.25 3.259]	[3.25 3.3]	[3.248 3.324]	[3.234 3.315]	[3.213 3.328]
8_1^2	[2.579 2.599]	[2.545 2.547]	[2.486 2.505]	[2.443 2.477]	[2.396 2.465]	[2.361 2.543]
8_2^2	[0.802 0.822]	[0.798 0.814]	[0.769 0.791]	[0.761 0.79]	[0.72 0.816]	[0.702 0.884]
8_3^2	[2.884 2.903]	[2.885 2.895]	[2.872 2.909]	[2.861 2.907]	[2.838 2.894]	[2.828 2.952]
8_4^2	[0.905 0.924]	[0.914 0.917]	[0.89 0.912]	[0.868 0.94]	[0.828 0.894]	[0.843 0.965]
8_5^2	[1.164 1.172]	[1.172 1.174]	[1.18 1.192]	[1.171 1.22]	[1.133 1.2]	[1.149 1.234]
8_6^2	[3.234 3.253]	[3.269 3.271]	[3.289 3.306]	[3.29 3.33]	[3.259 3.352]	[3.288 3.373]
8_7^2	[2.841 2.86]	[2.862 2.874]	[2.853 2.869]	[2.829 2.864]	[2.82 2.884]	[2.787 2.872]
8_8^2	[-0.014 0.005]	[-0.002 0.002]	[-0.009 0.006]	[-0.002 0.033]	[-0.029 0.063]	[-0.041 0.043]
8_9^2	[0.846 0.865]	[0.84 0.842]	[0.809 0.854]	[0.777 0.92]	[0.772 0.827]	[0.788 0.849]
8_{10}^2	[0.911 0.93]	[0.926 0.928]	[0.915 0.927]	[0.893 0.927]	[0.885 0.948]	[0.831 0.954]
8_{11}^2	[4.937 4.956]	[4.968 4.976]	[4.966 4.988]	[4.944 4.98]	[4.969 5.025]	[4.915 4.978]
8_{12}^2	[1.907 1.925]	[1.905 1.913]	[1.897 1.929]	[1.904 1.932]	[1.857 1.949]	[1.87 1.931]
8_{13}^2	[1.963 1.982]	[1.946 1.949]	[1.928 1.951]	[1.945 2.0]	[1.939 2.003]	[1.881 2.05]
8_{14}^2	[3.111 3.13]	[3.127 3.13]	[3.13 3.145]	[3.13 3.185]	[3.09 3.18]	[3.076 3.197]
8_{15}^2	[0.059 0.08]	[0.054 0.057]	[0.025 0.052]	[0.029 0.056]	[0.022 0.059]	[0.029 0.076]
8_{16}^2	[0.234 0.254]	[0.22 0.229]	[0.205 0.218]	[0.188 0.219]	[0.17 0.226]	[0.171 0.239]
9_1^2	[3.104 3.122]	[3.099 3.11]	[3.071 3.086]	[3.001 3.069]	[2.959 3.135]	[2.983 3.12]
9_2^2	[0.24 0.257]	[0.232 0.234]	[0.192 0.213]	[0.188 0.235]	[0.152 0.213]	[0.164 0.231]
9_3^2	[3.457 3.474]	[3.491 3.494]	[3.485 3.505]	[3.473 3.506]	[3.486 3.541]	[3.444 3.511]
9_4^2	[3.13 3.138]	[3.133 3.135]	[3.101 3.113]	[3.074 3.111]	[3.043 3.097]	[2.972 3.055]
9_5^2	[1.387 1.405]	[1.402 1.405]	[1.391 1.422]	[1.359 1.462]	[1.379 1.439]	[1.364 1.425]
9_6^2	[1.361 1.378]	[1.367 1.369]	[1.354 1.366]	[1.347 1.37]	[1.32 1.374]	[1.312 1.373]
9_7^2	[1.486 1.503]	[1.498 1.5]	[1.474 1.505]	[1.475 1.511]	[1.469 1.523]	[1.463 1.542]
9_8^2	[1.741 1.759]	[1.769 1.771]	[1.784 1.8]	[1.781 1.831]	[1.769 1.892]	[1.81 1.888]
9_9^2	[0.301 0.319]	[0.32 0.323]	[0.308 0.319]	[0.279 0.324]	[0.276 0.329]	[0.244 0.402]
9_{10}^2	[3.813 3.83]	[3.86 3.863]	[3.89 3.906]	[3.861 3.932]	[3.925 3.988]	[3.765 4.09]
9_{11}^2	[3.423 3.44]	[3.456 3.459]	[3.455 3.47]	[3.432 3.53]	[3.453 3.506]	[3.406 3.483]
9_{12}^2	[0.599 0.616]	[0.597 0.6]	[0.589 0.601]	[0.591 0.616]	[0.561 0.615]	[0.536 0.691]
9_{13}^2	[7.128 7.145]	[7.128 7.131]	[7.087 7.109]	[7.056 7.092]	[7.046 7.1]	[7.031 7.092]
9_{14}^2	[5.364 5.381]	[5.368 5.37]	[5.341 5.372]	[5.336 5.36]	[5.315 5.369]	[5.29 5.351]

L	$\mathcal{S}_{76}(L{+}{+})$	$\mathcal{S}_{100}(L{+}{+})$	$\mathcal{S}_{150}(L{+}{+})$	$\mathcal{S}_{200}(L{+}{+})$	$\mathcal{S}_{250}(L{+}{+})$	$\mathcal{S}_{300}(L{+}{+})$
9^2_{15}	[5.4 5.417]	[5.411 5.413]	[5.405 5.417]	[5.399 5.415]	[5.382 5.442]	[5.163 5.593]
9^2_{16}	[3.659 3.676]	[3.645 3.647]	[3.644 3.66]	[3.635 3.67]	[3.646 3.699]	[3.631 3.692]
9^2_{17}	[3.746 3.763]	[3.766 3.769]	[3.779 3.795]	[3.784 3.809]	[3.779 3.833]	[3.785 3.845]
9^2_{18}	[5.506 5.523]	[5.526 5.528]	[5.521 5.536]	[5.527 5.562]	[5.52 5.574]	[5.514 5.575]
9^2_{19}	[5.132 5.149]	[5.137 5.139]	[5.113 5.124]	[5.089 5.106]	[5.058 5.119]	[5.045 5.106]
9^2_{20}	[1.723 1.74]	[1.733 1.736]	[1.748 1.76]	[1.746 1.769]	[1.74 1.801]	[1.676 1.905]
9^2_{21}	[3.435 3.452]	[3.444 3.447]	[3.43 3.442]	[3.434 3.456]	[3.433 3.493]	[3.396 3.505]
9^2_{22}	[3.399 3.416]	[3.431 3.433]	[3.425 3.436]	[3.396 3.493]	[3.396 3.45]	[3.39 3.45]
9^2_{23}	[0.287 0.304]	[0.276 0.279]	[0.248 0.263]	[0.236 0.271]	[0.223 0.277]	[0.247 0.381]
9^2_{24}	[3.427 3.444]	[3.47 3.473]	[3.476 3.491]	[3.457 3.482]	[3.458 3.512]	[3.45 3.516]
9^2_{25}	[1.437 1.455]	[1.481 1.483]	[1.486 1.516]	[1.472 1.507]	[1.456 1.516]	[1.456 1.534]
9^2_{26}	[1.513 1.53]	[1.557 1.559]	[1.553 1.575]	[1.552 1.576]	[1.551 1.604]	[1.566 1.627]
9^2_{27}	[5.541 5.558]	[5.592 5.594]	[5.594 5.612]	[5.586 5.628]	[5.571 5.633]	[5.596 5.665]
9^2_{28}	[1.308 1.325]	[1.296 1.298]	[1.275 1.287]	[1.263 1.283]	[1.215 1.269]	[1.233 1.293]
9^2_{29}	[5.402 5.419]	[5.407 5.409]	[5.4 5.412]	[5.392 5.42]	[5.387 5.446]	[5.34 5.415]
9^2_{30}	[5.432 5.449]	[5.46 5.463]	[5.449 5.486]	[5.447 5.507]	[5.438 5.496]	[5.441 5.502]
9^2_{31}	[4.252 4.269]	[4.232 4.235]	[4.199 4.213]	[4.183 4.213]	[4.184 4.237]	[4.129 4.226]
9^2_{32}	[2.568 2.585]	[2.529 2.532]	[2.508 2.522]	[2.474 2.597]	[2.49 2.543]	[2.483 2.544]
9^2_{33}	[2.618 2.635]	[2.659 2.662]	[2.677 2.695]	[2.673 2.703]	[2.657 2.716]	[2.65 2.71]
9^2_{34}	[0.584 0.601]	[0.594 0.597]	[0.6 0.613]	[0.571 0.614]	[0.559 0.642]	[0.587 0.647]
9^2_{35}	[2.243 2.259]	[2.243 2.245]	[2.215 2.226]	[2.173 2.217]	[2.148 2.317]	[2.183 2.243]
9^2_{36}	[0.29 0.308]	[0.289 0.292]	[0.264 0.29]	[0.239 0.26]	[0.247 0.3]	[0.142 0.239]
9^2_{37}	[1.418 1.435]	[1.407 1.41]	[1.395 1.422]	[1.363 1.405]	[1.381 1.434]	[1.368 1.437]
9^2_{38}	[1.442 1.459]	[1.482 1.484]	[1.48 1.507]	[1.479 1.509]	[1.438 1.491]	[1.472 1.532]
9^2_{39}	[3.402 3.419]	[3.411 3.414]	[3.406 3.417]	[3.388 3.416]	[3.383 3.435]	[3.373 3.44]
9^2_{40}	[1.742 1.759]	[1.754 1.756]	[1.764 1.778]	[1.752 1.795]	[1.764 1.818]	[1.714 1.827]
9^2_{41}	[1.401 1.418]	[1.415 1.418]	[1.404 1.423]	[1.36 1.419]	[1.404 1.462]	[1.392 1.452]
9^2_{42}	[0.615 0.632]	[0.597 0.599]	[0.591 0.604]	[0.574 0.633]	[0.576 0.634]	[0.565 0.626]
9^2_{43}	[6.319 6.339]	[6.3 6.303]	[6.257 6.29]	[6.236 6.318]	[6.192 6.295]	[6.243 6.318]
9^2_{44}	[6.046 6.066]	[6.07 6.072]	[6.07 6.082]	[6.003 6.134]	[6.01 6.106]	[5.968 6.055]
9^2_{45}	[4.633 4.652]	[4.63 4.633]	[4.626 4.641]	[4.63 4.706]	[4.629 4.685]	[4.58 4.666]
9^2_{46}	[4.3 4.319]	[4.342 4.345]	[4.368 4.398]	[4.362 4.4]	[4.339 4.393]	[4.374 4.462]
9^2_{47}	[4.556 4.576]	[4.581 4.584]	[4.573 4.595]	[4.595 4.634]	[4.562 4.631]	[4.569 4.679]
9^2_{48}	[4.838 4.856]	[4.83 4.833]	[4.81 4.825]	[4.745 4.84]	[4.806 4.861]	[4.787 4.862]
9^2_{49}	[4.075 4.096]	[4.094 4.097]	[4.091 4.115]	[4.083 4.166]	[4.058 4.13]	[4.061 4.182]
9^2_{50}	[2.52 2.54]	[2.547 2.55]	[2.557 2.57]	[2.539 2.576]	[2.561 2.616]	[2.433 2.585]
9^2_{51}	[2.657 2.676]	[2.663 2.666]	[2.648 2.663]	[2.646 2.673]	[2.617 2.687]	[2.614 2.691]
9^2_{52}	[4.088 4.107]	[4.126 4.129]	[4.136 4.148]	[4.12 4.151]	[4.114 4.182]	[4.051 4.136]
9^2_{53}	[2.132 2.152]	[2.141 2.143]	[2.12 2.152]	[2.132 2.16]	[2.086 2.189]	[2.143 2.223]
9^2_{54}	[1.351 1.37]	[1.369 1.372]	[1.371 1.385]	[1.348 1.401]	[1.291 1.388]	[1.329 1.45]
9^2_{55}	[6.1 6.119]	[6.14 6.142]	[6.147 6.167]	[6.099 6.15]	[6.121 6.177]	[6.036 6.137]
9^2_{56}	[4.759 4.778]	[4.741 4.744]	[4.72 4.732]	[4.696 4.744]	[4.692 4.747]	[4.7 4.761]
9^2_{57}	[0.617 0.637]	[0.603 0.606]	[0.584 0.596]	[0.563 0.593]	[0.526 0.659]	[0.579 0.7]
9^2_{58}	[2.12 2.138]	[2.165 2.169]	[2.169 2.209]	[2.171 2.193]	[2.152 2.207]	[2.114 2.218]
9^2_{59}	[6.428 6.447]	[6.459 6.461]	[6.464 6.478]	[6.438 6.503]	[6.433 6.488]	[6.407 6.511]
9^2_{60}	[4.345 4.363]	[4.356 4.359]	[4.359 4.373]	[4.326 4.397]	[4.25 4.384]	[4.324 4.41]
9^2_{61}	[-0.0 0.02]	[-0.002 0.001]	[-0.006 0.009]	[-0.024 0.014]	[-0.012 0.044]	[0.009 0.104]

Table S3. Table containing 95% confidence intervals for $\mathcal{S}_n(\mathrm{L}{+}{+},1)$, the mean self-writhe of component 1 for the canonical links, for lengths $n = 76$, 100, 150, 200, 250, and 300 based on BFACF simulations. As before, confidence intervals do not vary widely for different lengths, thus supporting the hypothesis that mean writhe is well-behaved as length increases.

L	$\mathcal{S}_{76}(L{+}{+},1)$	$\mathcal{S}_{100}(L{+}{+},1)$	$\mathcal{S}_{150}(L{+}{+},1)$	$\mathcal{S}_{200}(L{+}{+},1)$	$\mathcal{S}_{250}(L{+}{+},1)$	$\mathcal{S}_{300}(L{+}{+},1)$
2_1^2	[-0.006 0.008]	[-0.009 0.04]	[-0.032 0.067]	[-0.054 0.043]	[-0.138 0.176]	[-0.202 0.308]
4_1^2	[0.444 0.465]	[0.443 0.449]	[0.377 0.493]	[0.391 0.481]	[0.38 0.469]	[0.334 0.476]
5_1^2	[0.724 0.747]	[0.732 0.735]	[0.695 0.794]	[0.685 0.844]	[0.66 0.793]	[0.641 0.836]
6_1^2	[0.863 0.883]	[0.854 0.861]	[0.837 0.852]	[0.812 0.862]	[0.755 0.875]	[0.793 0.971]
6_2^2	[-0.01 0.012]	[-0.004 0.006]	[-0.018 0.014]	[-0.144 0.014]	[-0.025 0.061]	[-0.042 0.072]
6_3^2	[1.019 1.046]	[1.031 1.035]	[0.999 1.097]	[0.979 1.207]	[0.98 1.166]	[0.944 1.175]
7_1^2	[1.135 1.158]	[1.141 1.146]	[1.127 1.142]	[1.027 1.167]	[1.106 1.219]	[1.062 1.161]
7_2^2	[0.271 0.297]	[0.284 0.29]	[0.274 0.295]	[0.211 0.509]	[0.273 0.351]	[0.274 0.376]
7_3^2	[1.309 1.35]	[1.328 1.336]	[1.327 1.351]	[1.318 1.373]	[1.302 1.363]	[1.235 1.384]
7_4^2	[3.989 4.008]	[4.01 4.018]	[4.007 4.023]	[3.992 4.04]	[3.989 4.038]	[3.978 4.059]
7_5^2	[2.824 2.843]	[2.85 2.853]	[2.838 2.856]	[2.843 2.904]	[2.824 2.883]	[2.797 2.915]
7_6^2	[1.404 1.422]	[1.389 1.397]	[1.375 1.399]	[1.381 1.41]	[1.357 1.404]	[1.323 1.433]
7_7^2	[3.489 3.509]	[3.485 3.489]	[3.421 3.504]	[3.458 3.527]	[3.419 3.515]	[3.447 3.603]
7_8^2	[3.293 3.313]	[3.318 3.326]	[3.314 3.356]	[3.304 3.368]	[3.31 3.379]	[3.298 3.396]
8_1^2	[1.293 1.313]	[1.272 1.274]	[1.244 1.259]	[1.225 1.251]	[1.174 1.226]	[1.169 1.303]
8_2^2	[0.395 0.423]	[0.396 0.412]	[0.38 0.398]	[0.373 0.396]	[0.348 0.42]	[0.331 0.468]
8_3^2	[1.431 1.461]	[1.442 1.454]	[1.429 1.462]	[1.435 1.474]	[1.412 1.457]	[1.401 1.499]
8_4^2	[0.445 0.469]	[0.457 0.46]	[0.443 0.462]	[0.417 0.476]	[0.421 0.473]	[0.406 0.497]
8_5^2	[0.576 0.589]	[0.584 0.587]	[0.585 0.596]	[0.575 0.618]	[0.547 0.602]	[0.554 0.623]
8_6^2	[1.552 1.643]	[1.633 1.637]	[1.638 1.656]	[1.632 1.671]	[1.591 1.675]	[1.64 1.714]
8_7^2	[1.39 1.431]	[1.422 1.435]	[1.423 1.438]	[1.415 1.445]	[1.412 1.465]	[1.389 1.456]
8_8^2	[-0.028 0.011]	[-0.002 0.003]	[-0.004 0.01]	[0.006 0.035]	[-0.03 0.044]	[-0.029 0.037]
8_9^2	[0.512 0.53]	[0.519 0.521]	[0.508 0.548]	[0.471 0.599]	[0.486 0.534]	[0.5 0.554]
8_{10}^2	[0.623 0.641]	[0.628 0.63]	[0.612 0.623]	[0.594 0.625]	[0.589 0.644]	[0.567 0.676]
8_{11}^2	[4.431 4.456]	[4.45 4.457]	[4.441 4.462]	[4.423 4.455]	[4.444 4.492]	[4.397 4.451]
8_{12}^2	[2.409 2.433]	[2.424 2.431]	[2.416 2.444]	[2.422 2.447]	[2.363 2.445]	[2.406 2.46]
8_{13}^2	[1.955 1.972]	[1.925 1.927]	[1.906 1.926]	[1.917 1.965]	[1.911 1.967]	[1.836 1.98]
8_{14}^2	[3.186 3.203]	[3.194 3.196]	[3.181 3.195]	[3.17 3.218]	[3.159 3.238]	[3.133 3.236]
8_{15}^2	[0.051 0.061]	[0.052 0.053]	[0.038 0.052]	[0.034 0.048]	[0.037 0.055]	[0.039 0.06]
8_{16}^2	[0.161 0.18]	[0.155 0.162]	[0.143 0.154]	[0.132 0.16]	[0.107 0.156]	[0.118 0.179]
9_1^2	[1.547 1.57]	[1.545 1.556]	[1.534 1.547]	[1.504 1.559]	[1.489 1.632]	[1.474 1.58]
9_2^2	[0.117 0.143]	[0.115 0.118]	[0.093 0.111]	[0.082 0.12]	[0.07 0.119]	[0.055 0.108]
9_3^2	[1.711 1.742]	[1.745 1.751]	[1.732 1.754]	[1.727 1.758]	[1.737 1.785]	[1.701 1.757]
9_4^2	[1.563 1.573]	[1.566 1.571]	[1.549 1.559]	[1.535 1.565]	[1.509 1.552]	[1.47 1.533]
9_5^2	[0.681 0.705]	[0.7 0.703]	[0.687 0.715]	[0.666 0.751]	[0.687 0.734]	[0.675 0.723]
9_6^2	[0.674 0.704]	[0.682 0.685]	[0.674 0.685]	[0.673 0.692]	[0.649 0.692]	[0.645 0.693]
9_7^2	[0.74 0.765]	[0.748 0.751]	[0.729 0.757]	[0.73 0.76]	[0.719 0.762]	[0.724 0.786]
9_8^2	[0.852 0.887]	[0.884 0.888]	[0.891 0.907]	[0.865 0.912]	[0.865 0.974]	[0.885 0.952]
9_9^2	[0.15 0.178]	[0.159 0.163]	[0.153 0.164]	[0.133 0.17]	[0.129 0.172]	[0.089 0.212]
9_{10}^2	[1.87 1.925]	[1.925 1.931]	[1.941 1.961]	[1.897 1.973]	[1.945 2.006]	[1.845 2.146]
9_{11}^2	[1.693 1.728]	[1.728 1.734]	[1.721 1.737]	[1.708 1.798]	[1.715 1.761]	[1.692 1.756]
9_{12}^2	[0.29 0.321]	[0.296 0.299]	[0.289 0.3]	[0.306 0.337]	[0.272 0.319]	[0.22 0.349]
9_{13}^2	[6.757 6.774]	[6.775 6.777]	[6.755 6.775]	[6.737 6.769]	[6.734 6.783]	[6.714 6.768]
9_{14}^2	[5.636 5.653]	[5.674 5.676]	[5.663 5.692]	[5.657 5.679]	[5.628 5.677]	[5.617 5.671]

L	$\mathcal{S}_{76}(L{+}{+},1)$	$\mathcal{S}_{100}(L{+}{+},1)$	$\mathcal{S}_{150}(L{+}{+},1)$	$\mathcal{S}_{200}(L{+}{+},1)$	$\mathcal{S}_{250}(L{+}{+},1)$	$\mathcal{S}_{300}(L{+}{+},1)$
9^2_{15}	[5.068 5.085]	[5.087 5.089]	[5.095 5.106]	[5.102 5.116]	[5.089 5.143]	[4.938 5.317]
9^2_{16}	[3.936 3.953]	[3.94 3.942]	[3.946 3.96]	[3.947 3.978]	[3.954 4.003]	[3.939 3.993]
9^2_{17}	[4.11 4.127]	[4.11 4.112]	[4.101 4.116]	[4.092 4.115]	[4.094 4.143]	[4.094 4.149]
9^2_{18}	[5.233 5.25]	[5.227 5.229]	[5.21 5.223]	[5.21 5.241]	[5.202 5.251]	[5.204 5.259]
9^2_{19}	[4.426 4.444]	[4.43 4.432]	[4.411 4.421]	[4.395 4.408]	[4.37 4.422]	[4.37 4.421]
9^2_{20}	[2.421 2.438]	[2.429 2.431]	[2.446 2.456]	[2.447 2.467]	[2.434 2.485]	[2.362 2.552]
9^2_{21}	[3.574 3.594]	[3.581 3.584]	[3.574 3.584]	[3.576 3.595]	[3.564 3.615]	[3.539 3.63]
9^2_{22}	[3.276 3.296]	[3.297 3.299]	[3.289 3.299]	[3.267 3.352]	[3.264 3.31]	[3.264 3.315]
9^2_{23}	[0.132 0.154]	[0.137 0.141]	[0.125 0.139]	[0.105 0.134]	[0.107 0.15]	[0.108 0.214]
9^2_{24}	[1.71 1.766]	[1.732 1.736]	[1.73 1.745]	[1.718 1.74]	[1.718 1.764]	[1.726 1.781]
9^2_{25}	[0.924 0.946]	[0.952 0.955]	[0.957 0.985]	[0.947 0.979]	[0.936 0.99]	[0.916 0.986]
9^2_{26}	[1.032 1.052]	[1.048 1.051]	[1.036 1.056]	[1.027 1.049]	[1.011 1.059]	[1.037 1.091]
9^2_{27}	[4.855 4.881]	[4.876 4.879]	[4.859 4.878]	[4.847 4.887]	[4.833 4.888]	[4.852 4.913]
9^2_{28}	[1.991 2.015]	[2.015 2.018]	[2.009 2.02]	[1.993 2.012]	[1.958 2.007]	[1.976 2.031]
9^2_{29}	[5.735 5.751]	[5.735 5.738]	[5.711 5.721]	[5.695 5.721]	[5.692 5.745]	[5.633 5.701]
9^2_{30}	[5.117 5.134]	[5.153 5.155]	[5.157 5.191]	[5.149 5.203]	[5.148 5.2]	[5.15 5.204]
9^2_{31}	[4.227 4.243]	[4.181 4.184]	[4.149 4.161]	[4.134 4.161]	[4.139 4.186]	[4.091 4.177]
9^2_{32}	[2.566 2.582]	[2.513 2.515]	[2.486 2.498]	[2.452 2.561]	[2.466 2.513]	[2.469 2.524]
9^2_{33}	[2.635 2.651]	[2.698 2.701]	[2.716 2.732]	[2.715 2.741]	[2.691 2.744]	[2.689 2.742]
9^2_{34}	[0.97 0.991]	[0.962 0.964]	[0.955 0.966]	[0.936 0.972]	[0.928 0.998]	[0.951 1.001]
9^2_{35}	[1.834 1.85]	[1.829 1.832]	[1.81 1.82]	[1.768 1.805]	[1.758 1.898]	[1.777 1.827]
9^2_{36}	[0.224 0.241]	[0.204 0.207]	[0.198 0.221]	[0.188 0.207]	[0.192 0.238]	[0.12 0.205]
9^2_{37}	[1.422 1.437]	[1.398 1.4]	[1.383 1.406]	[1.356 1.393]	[1.363 1.409]	[1.354 1.415]
9^2_{38}	[1.43 1.445]	[1.473 1.475]	[1.479 1.502]	[1.478 1.504]	[1.445 1.492]	[1.481 1.534]
9^2_{39}	[3.367 3.383]	[3.4 3.402]	[3.409 3.419]	[3.391 3.415]	[3.395 3.44]	[3.379 3.436]
9^2_{40}	[2.203 2.219]	[2.293 2.296]	[2.377 2.389]	[2.398 2.434]	[2.417 2.461]	[2.34 2.433]
9^2_{41}	[1.143 1.16]	[1.206 1.208]	[1.227 1.242]	[1.218 1.266]	[1.243 1.29]	[1.235 1.282]
9^2_{42}	[0.761 0.776]	[0.781 0.783]	[0.804 0.815]	[0.792 0.842]	[0.801 0.85]	[0.804 0.855]
9^2_{43}	[6.276 6.293]	[6.257 6.26]	[6.224 6.253]	[6.188 6.26]	[6.164 6.254]	[6.2 6.266]
9^2_{44}	[6.127 6.144]	[6.146 6.148]	[6.14 6.151]	[6.082 6.198]	[6.071 6.156]	[6.056 6.134]
9^2_{45}	[4.571 4.588]	[4.573 4.575]	[4.579 4.593]	[4.591 4.66]	[4.586 4.634]	[4.534 4.61]
9^2_{46}	[4.373 4.39]	[4.41 4.412]	[4.431 4.458]	[4.43 4.464]	[4.412 4.461]	[4.443 4.521]
9^2_{47}	[4.611 4.629]	[4.629 4.631]	[4.618 4.637]	[4.638 4.672]	[4.609 4.669]	[4.599 4.696]
9^2_{48}	[4.759 4.776]	[4.758 4.761]	[4.745 4.758]	[4.682 4.766]	[4.735 4.784]	[4.719 4.786]
9^2_{49}	[3.8 3.818]	[3.816 3.819]	[3.807 3.827]	[3.8 3.869]	[3.769 3.829]	[3.759 3.86]
9^2_{50}	[2.952 2.97]	[2.972 2.975]	[2.976 2.986]	[2.949 2.98]	[2.984 3.03]	[2.882 3.008]
9^2_{51}	[2.945 2.964]	[2.989 2.991]	[3.006 3.018]	[3.008 3.03]	[3.001 3.058]	[2.985 3.047]
9^2_{52}	[3.704 3.722]	[3.757 3.759]	[3.771 3.782]	[3.762 3.788]	[3.759 3.815]	[3.677 3.747]
9^2_{53}	[1.061 1.076]	[1.07 1.072]	[1.057 1.08]	[1.07 1.09]	[1.024 1.096]	[1.07 1.128]
9^2_{54}	[0.669 0.713]	[0.684 0.686]	[0.68 0.693]	[0.681 0.723]	[0.657 0.732]	[0.65 0.741]
9^2_{55}	[6.159 6.176]	[6.196 6.198]	[6.2 6.218]	[6.157 6.202]	[6.172 6.221]	[6.104 6.194]
9^2_{56}	[4.702 4.719]	[4.687 4.69]	[4.67 4.681]	[4.65 4.692]	[4.651 4.699]	[4.658 4.712]
9^2_{57}	[0.988 1.005]	[0.961 0.964]	[0.926 0.936]	[0.897 0.922]	[0.841 0.95]	[0.869 0.969]
9^2_{58}	[1.711 1.731]	[1.792 1.795]	[1.821 1.856]	[1.84 1.859]	[1.819 1.865]	[1.8 1.89]
9^2_{59}	[6.404 6.421]	[6.43 6.432]	[6.431 6.444]	[6.413 6.471]	[6.397 6.446]	[6.368 6.461]
9^2_{60}	[4.378 4.395]	[4.396 4.398]	[4.402 4.415]	[4.379 4.442]	[4.313 4.432]	[4.403 4.481]
9^2_{61}	[0.937 0.951]	[0.924 0.926]	[0.907 0.918]	[0.886 0.913]	[0.894 0.934]	[0.892 0.959]

Table S4. Table containing 95% confidence intervals for $\mathcal{S}_n(\mathrm{L}{+}{+},2)$, the mean self-writhe of component 2 for the canonical links, for lengths $n = 76$, 100, 150, 200, 250, and 300 based on BFACF simulations. Again, confidence intervals do not vary widely for different lengths.

L	$\mathcal{S}_{76}(L{+}{+},2)$	$\mathcal{S}_{100}(L{+}{+},2)$	$\mathcal{S}_{150}(L{+}{+},2)$	$\mathcal{S}_{200}(L{+}{+},2)$	$\mathcal{S}_{250}(L{+}{+},2)$	$\mathcal{S}_{300}(L{+}{+},2)$
2_1^2	[-0.011 0.003]	[-0.037 0.011]	[-0.036 0.066]	[-0.106 0.087]	[-0.173 0.178]	[-0.12 0.334]
4_1^2	[0.443 0.464]	[0.444 0.45]	[0.376 0.493]	[0.336 0.424]	[0.357 0.447]	[0.401 0.544]
5_1^2	[0.72 0.743]	[0.732 0.735]	[0.678 0.775]	[0.657 0.822]	[0.692 0.829]	[0.59 0.792]
6_1^2	[0.853 0.873]	[0.854 0.861]	[0.837 0.853]	[0.795 0.847]	[0.771 0.89]	[0.756 0.934]
6_2^2	[-0.01 0.011]	[-0.005 0.005]	[-0.019 0.013]	[-0.067 0.083]	[-0.051 0.035]	[-0.038 0.074]
6_3^2	[1.008 1.034]	[1.031 1.035]	[0.997 1.094]	[0.892 1.105]	[0.93 1.107]	[0.915 1.145]
7_1^2	[1.137 1.16]	[1.143 1.148]	[1.137 1.152]	[1.109 1.249]	[1.059 1.171]	[1.121 1.221]
7_2^2	[0.283 0.308]	[0.284 0.29]	[0.293 0.314]	[0.093 0.389]	[0.268 0.345]	[0.269 0.37]
7_3^2	[1.301 1.342]	[1.333 1.341]	[1.331 1.356]	[1.324 1.38]	[1.304 1.364]	[1.306 1.456]
7_4^2	[0.311 0.324]	[0.312 0.318]	[0.303 0.313]	[0.289 0.319]	[0.276 0.307]	[0.286 0.337]
7_5^2	[-0.313 -0.299]	[-0.31 -0.308]	[-0.311 -0.3]	[-0.326 -0.286]	[-0.316 -0.278]	[-0.329 -0.258]
7_6^2	[0.02 0.031]	[0.028 0.033]	[0.023 0.039]	[0.023 0.042]	[0.011 0.042]	[0.032 0.102]
7_7^2	[0.038 0.051]	[0.05 0.052]	[0.024 0.078]	[0.036 0.081]	[0.001 0.065]	[0.009 0.105]
7_8^2	[-0.084 -0.072]	[-0.07 -0.065]	[-0.074 -0.047]	[-0.07 -0.03]	[-0.091 -0.05]	[-0.106 -0.047]
8_1^2	[1.277 1.296]	[1.272 1.274]	[1.236 1.252]	[1.209 1.235]	[1.204 1.257]	[1.148 1.284]
8_2^2	[0.388 0.418]	[0.394 0.41]	[0.382 0.4]	[0.379 0.403]	[0.347 0.421]	[0.325 0.463]
8_3^2	[1.433 1.463]	[1.436 1.448]	[1.428 1.461]	[1.41 1.449]	[1.409 1.454]	[1.39 1.489]
8_4^2	[0.444 0.47]	[0.456 0.458]	[0.439 0.458]	[0.429 0.486]	[0.389 0.439]	[0.406 0.499]
8_5^2	[0.579 0.592]	[0.586 0.589]	[0.589 0.601]	[0.578 0.62]	[0.564 0.619]	[0.569 0.637]
8_6^2	[1.601 1.693]	[1.633 1.637]	[1.641 1.659]	[1.639 1.678]	[1.63 1.715]	[1.616 1.692]
8_7^2	[1.42 1.46]	[1.432 1.445]	[1.423 1.438]	[1.402 1.431]	[1.388 1.44]	[1.373 1.441]
8_8^2	[-0.015 0.023]	[-0.002 0.002]	[-0.012 0.003]	[-0.02 0.01]	[-0.026 0.046]	[-0.036 0.03]
8_9^2	[0.328 0.341]	[0.321 0.322]	[0.291 0.315]	[0.276 0.35]	[0.276 0.304]	[0.276 0.306]
8_{10}^2	[0.283 0.295]	[0.297 0.299]	[0.3 0.306]	[0.291 0.309]	[0.284 0.316]	[0.24 0.301]
8_{11}^2	[0.492 0.513]	[0.516 0.522]	[0.518 0.533]	[0.512 0.534]	[0.513 0.545]	[0.505 0.541]
8_{12}^2	[-0.516 -0.494]	[-0.522 -0.516]	[-0.528 -0.507]	[-0.526 -0.508]	[-0.529 -0.474]	[-0.551 -0.515]
8_{13}^2	[0.005 0.014]	[0.021 0.023]	[0.018 0.029]	[0.018 0.046]	[0.016 0.048]	[0.015 0.101]
8_{14}^2	[-0.079 -0.069]	[-0.067 -0.066]	[-0.055 -0.046]	[-0.051 -0.022]	[-0.087 -0.04]	[-0.079 -0.017]
8_{15}^2	[0.004 0.023]	[0.002 0.004]	[-0.018 0.005]	[-0.01 0.014]	[-0.021 0.011]	[-0.013 0.023]
8_{16}^2	[0.069 0.078]	[0.064 0.068]	[0.06 0.066]	[0.05 0.065]	[0.054 0.08]	[0.04 0.073]
9_1^2	[1.542 1.566]	[1.548 1.56]	[1.531 1.544]	[1.476 1.531]	[1.414 1.56]	[1.472 1.578]
9_2^2	[0.106 0.132]	[0.115 0.118]	[0.092 0.11]	[0.091 0.13]	[0.064 0.113]	[0.09 0.142]
9_3^2	[1.724 1.754]	[1.742 1.747]	[1.741 1.763]	[1.731 1.762]	[1.729 1.776]	[1.72 1.776]
9_4^2	[1.561 1.572]	[1.563 1.568]	[1.547 1.558]	[1.527 1.558]	[1.518 1.561]	[1.48 1.544]
9_5^2	[0.691 0.715]	[0.7 0.703]	[0.691 0.72]	[0.659 0.745]	[0.675 0.722]	[0.672 0.719]
9_6^2	[0.666 0.696]	[0.683 0.686]	[0.676 0.686]	[0.666 0.685]	[0.656 0.699]	[0.65 0.698]
9_7^2	[0.729 0.755]	[0.748 0.751]	[0.733 0.761]	[0.733 0.763]	[0.734 0.777]	[0.717 0.778]
9_8^2	[0.863 0.898]	[0.882 0.886]	[0.885 0.901]	[0.894 0.941]	[0.857 0.966]	[0.896 0.963]
9_9^2	[0.132 0.16]	[0.159 0.162]	[0.15 0.161]	[0.131 0.169]	[0.13 0.174]	[0.111 0.234]
9_{10}^2	[1.897 1.952]	[1.93 1.937]	[1.937 1.957]	[1.923 1.999]	[1.95 2.012]	[1.783 2.08]
9_{11}^2	[1.703 1.738]	[1.724 1.729]	[1.725 1.741]	[1.683 1.774]	[1.719 1.765]	[1.689 1.752]
9_{12}^2	[0.286 0.318]	[0.299 0.303]	[0.294 0.306]	[0.277 0.308]	[0.269 0.315]	[0.266 0.392]
9_{13}^2	[0.365 0.376]	[0.352 0.354]	[0.328 0.339]	[0.312 0.329]	[0.301 0.327]	[0.306 0.335]
9_{14}^2	[-0.277 -0.266]	[-0.307 -0.305]	[-0.329 -0.313]	[-0.326 -0.314]	[-0.324 -0.297]	[-0.338 -0.309]
9_{15}^2	[0.326 0.338]	[0.323 0.324]	[0.308 0.314]	[0.294 0.302]	[0.281 0.31]	[0.146 0.355]

L	$\mathcal{S}_{76}(L{+}{+},2)$	$\mathcal{S}_{100}(L{+}{+},2)$	$\mathcal{S}_{150}(L{+}{+},2)$	$\mathcal{S}_{200}(L{+}{+},2)$	$\mathcal{S}_{250}(L{+}{+},2)$	$\mathcal{S}_{300}(L{+}{+},2)$
9^2_{16}	[-0.283 -0.272]	[-0.296 -0.294]	[-0.305 -0.297]	[-0.319 -0.302]	[-0.319 -0.293]	[-0.319 -0.29]
9^2_{17}	[-0.37 -0.359]	[-0.344 -0.343]	[-0.325 -0.317]	[-0.313 -0.301]	[-0.325 -0.299]	[-0.321 -0.292]
9^2_{18}	[0.267 0.278]	[0.298 0.3]	[0.308 0.316]	[0.31 0.328]	[0.307 0.333]	[0.298 0.327]
9^2_{19}	[0.698 0.713]	[0.706 0.708]	[0.699 0.706]	[0.691 0.701]	[0.674 0.711]	[0.662 0.699]
9^2_{20}	[-0.705 -0.691]	[-0.697 -0.695]	[-0.701 -0.693]	[-0.706 -0.692]	[-0.708 -0.67]	[-0.738 -0.595]
9^2_{21}	[-0.149 -0.131]	[-0.138 -0.136]	[-0.146 -0.139]	[-0.148 -0.133]	[-0.146 -0.108]	[-0.168 -0.101]
9^2_{22}	[0.113 0.131]	[0.133 0.135]	[0.133 0.141]	[0.105 0.165]	[0.119 0.153]	[0.112 0.149]
9^2_{23}	[0.141 0.164]	[0.137 0.14]	[0.117 0.131]	[0.119 0.148]	[0.1 0.143]	[0.099 0.205]
9^2_{24}	[1.67 1.726]	[1.735 1.739]	[1.738 1.753]	[1.73 1.751]	[1.722 1.767]	[1.702 1.757]
9^2_{25}	[0.502 0.52]	[0.528 0.53]	[0.52 0.539]	[0.517 0.537]	[0.506 0.54]	[0.522 0.565]
9^2_{26}	[0.471 0.487]	[0.507 0.509]	[0.511 0.525]	[0.518 0.533]	[0.528 0.558]	[0.516 0.55]
9^2_{27}	[0.67 0.693]	[0.714 0.717]	[0.728 0.742]	[0.726 0.755]	[0.722 0.761]	[0.726 0.769]
9^2_{28}	[-0.697 -0.675]	[-0.721 -0.718]	[-0.738 -0.729]	[-0.736 -0.722]	[-0.757 -0.723]	[-0.76 -0.722]
9^2_{29}	[-0.338 -0.327]	[-0.329 -0.328]	[-0.313 -0.307]	[-0.309 -0.295]	[-0.316 -0.287]	[-0.308 -0.272]
9^2_{30}	[0.309 0.32]	[0.306 0.308]	[0.284 0.303]	[0.286 0.316]	[0.279 0.307]	[0.28 0.309]
9^2_{31}	[0.022 0.03]	[0.05 0.052]	[0.048 0.055]	[0.043 0.058]	[0.035 0.061]	[0.02 0.066]
9^2_{32}	[-0.001 0.006]	[0.016 0.017]	[0.02 0.026]	[-0.0 0.058]	[0.014 0.04]	[0.003 0.032]
9^2_{33}	[-0.02 -0.013]	[-0.04 -0.039]	[-0.043 -0.034]	[-0.047 -0.033]	[-0.046 -0.017]	[-0.05 -0.021]
9^2_{34}	[-0.397 -0.379]	[-0.368 -0.366]	[-0.358 -0.35]	[-0.375 -0.348]	[-0.388 -0.337]	[-0.377 -0.341]
9^2_{35}	[0.402 0.416]	[0.413 0.415]	[0.402 0.409]	[0.394 0.422]	[0.354 0.455]	[0.392 0.429]
9^2_{36}	[0.062 0.071]	[0.084 0.086]	[0.061 0.074]	[0.047 0.057]	[0.045 0.071]	[0.005 0.052]
9^2_{37}	[-0.007 0.001]	[0.008 0.01]	[0.007 0.021]	[-0.001 0.02]	[0.008 0.035]	[0.001 0.035]
9^2_{38}	[0.01 0.017]	[0.009 0.01]	[-0.004 0.009]	[-0.004 0.011]	[-0.017 0.009]	[-0.02 0.01]
9^2_{39}	[0.029 0.041]	[0.011 0.013]	[-0.006 0.001]	[-0.01 0.008]	[-0.024 0.008]	[-0.021 0.019]
9^2_{40}	[-0.467 -0.455]	[-0.541 -0.539]	[-0.617 -0.608]	[-0.656 -0.629]	[-0.665 -0.631]	[-0.651 -0.582]
9^2_{41}	[0.25 0.266]	[0.208 0.21]	[0.172 0.186]	[0.127 0.169]	[0.146 0.186]	[0.142 0.184]
9^2_{42}	[-0.151 -0.139]	[-0.185 -0.183]	[-0.215 -0.207]	[-0.232 -0.195]	[-0.238 -0.203]	[-0.252 -0.216]
9^2_{43}	[0.039 0.049]	[0.043 0.044]	[0.027 0.044]	[0.033 0.073]	[0.009 0.059]	[0.029 0.066]
9^2_{44}	[-0.084 -0.075]	[-0.076 -0.075]	[-0.072 -0.067]	[-0.101 -0.043]	[-0.077 -0.034]	[-0.103 -0.065]
9^2_{45}	[0.059 0.068]	[0.056 0.058]	[0.044 0.051]	[0.025 0.06]	[0.034 0.06]	[0.032 0.07]
9^2_{46}	[-0.076 -0.068]	[-0.068 -0.067]	[-0.069 -0.055]	[-0.074 -0.057]	[-0.082 -0.058]	[-0.083 -0.044]
9^2_{47}	[-0.059 -0.05]	[-0.048 -0.047]	[-0.049 -0.038]	[-0.05 -0.032]	[-0.059 -0.026]	[-0.05 0.002]
9^2_{48}	[0.075 0.084]	[0.072 0.073]	[0.063 0.069]	[0.047 0.089]	[0.062 0.086]	[0.056 0.089]
9^2_{49}	[0.27 0.282]	[0.277 0.279]	[0.28 0.293]	[0.266 0.314]	[0.274 0.315]	[0.277 0.347]
9^2_{50}	[-0.437 -0.424]	[-0.425 -0.424]	[-0.421 -0.414]	[-0.418 -0.397]	[-0.434 -0.402]	[-0.48 -0.393]
9^2_{51}	[-0.295 -0.28]	[-0.327 -0.325]	[-0.362 -0.352]	[-0.368 -0.352]	[-0.398 -0.356]	[-0.387 -0.34]
9^2_{52}	[0.378 0.392]	[0.369 0.371]	[0.361 0.369]	[0.351 0.37]	[0.341 0.382]	[0.357 0.407]
9^2_{53}	[1.067 1.081]	[1.07 1.072]	[1.056 1.079]	[1.056 1.076]	[1.041 1.114]	[1.055 1.113]
9^2_{54}	[0.647 0.692]	[0.684 0.687]	[0.685 0.698]	[0.651 0.693]	[0.608 0.683]	[0.648 0.739]
9^2_{55}	[-0.062 -0.053]	[-0.056 -0.055]	[-0.056 -0.047]	[-0.067 -0.044]	[-0.061 -0.035]	[-0.086 -0.039]
9^2_{56}	[0.054 0.062]	[0.053 0.054]	[0.048 0.053]	[0.038 0.06]	[0.032 0.057]	[0.032 0.06]
9^2_{57}	[-0.376 -0.362]	[-0.359 -0.357]	[-0.345 -0.337]	[-0.341 -0.323]	[-0.343 -0.262]	[-0.316 -0.244]
9^2_{58}	[0.4 0.416]	[0.372 0.375]	[0.338 0.363]	[0.326 0.339]	[0.322 0.353]	[0.292 0.35]
9^2_{59}	[0.02 0.028]	[0.028 0.029]	[0.031 0.037]	[0.014 0.043]	[0.027 0.051]	[0.021 0.068]
9^2_{60}	[-0.036 -0.028]	[-0.04 -0.039]	[-0.046 -0.039]	[-0.065 -0.034]	[-0.086 -0.026]	[-0.094 -0.056]
9^2_{61}	[-0.941 -0.927]	[-0.926 -0.924]	[-0.917 -0.906]	[-0.918 -0.891]	[-0.918 -0.878]	[-0.903 -0.835]

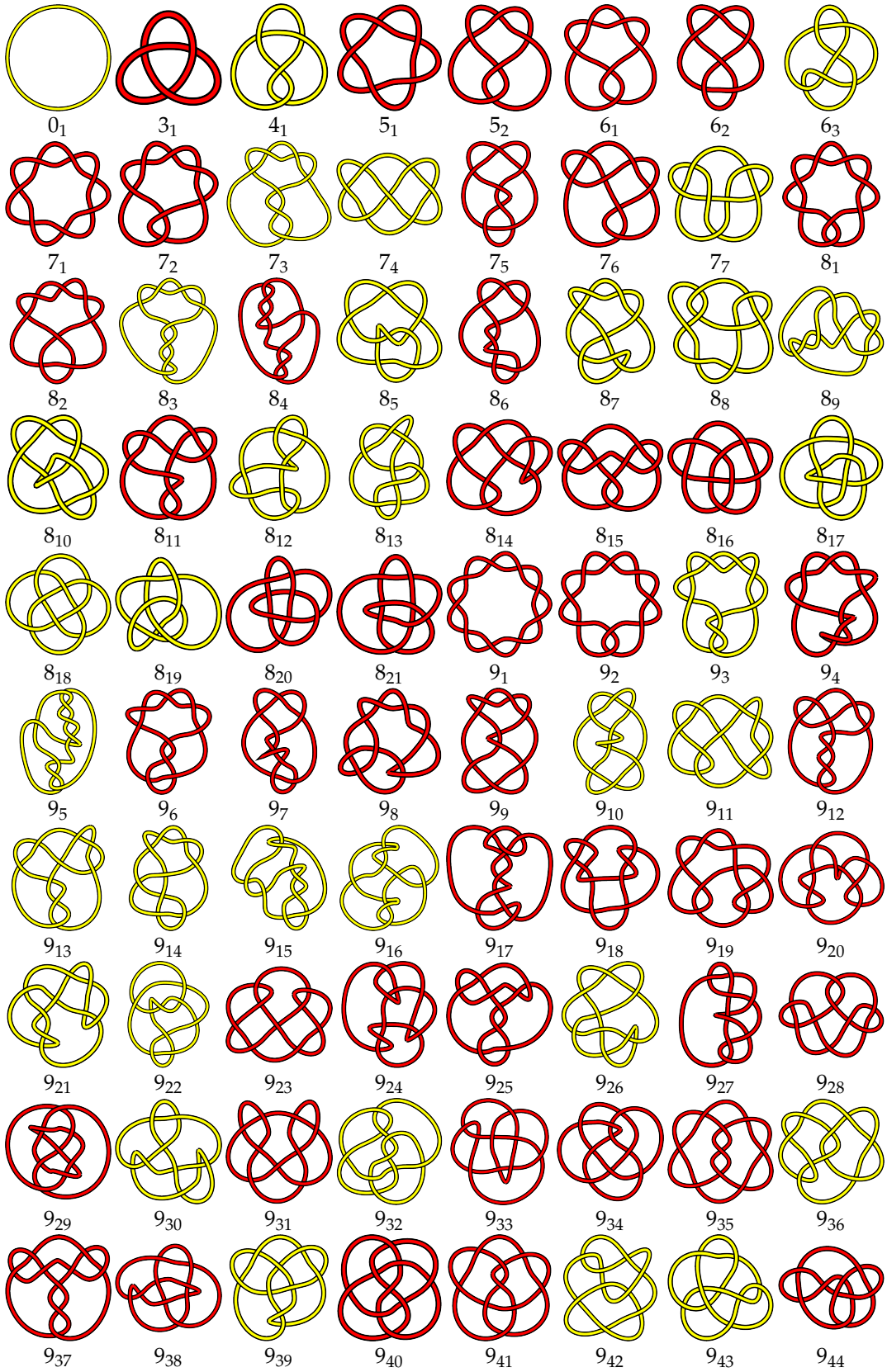
Table S5. Columns 2, 3, and 4 show confidence intervals for the average of the sum of self-writhes ($\mathcal{S}_{200}(L{+}{+})$), and self-writhes of components 1 and 2 ($\mathcal{S}_{200}(L{+}{+},1)$ and $\mathcal{S}_{200}(L{+}{+},2)$) for length 200 links in $\mathbb{Z}^3$. For each 2-component link indicated in column 1, the average is taken over an ensemble of statistically independent length 200 lattice links of type L as described in section 6. Combined with the linking number (column 7), these confidence intervals are used to determine which diagram appears as L++ in table A1 with small ambiguities for 9_5^2, 9_{34}^2, 9_{35}^2, 9_{39}^2, and 9_{41}^2. The Rolfsen diagram's designation in our nomenclature (as described in 3.2) is presented in column 5 [2]. Column 6 lists which isotopy class is represented by default in KnotPlot [23]. Note that the KnotPlot conformations are reflections of the Rolfsen Table. Symmetry groups (column 8) are taken from the work of *Henry & Weeks*, *Berglund et al.*, and from SnapPy [15,16,26].

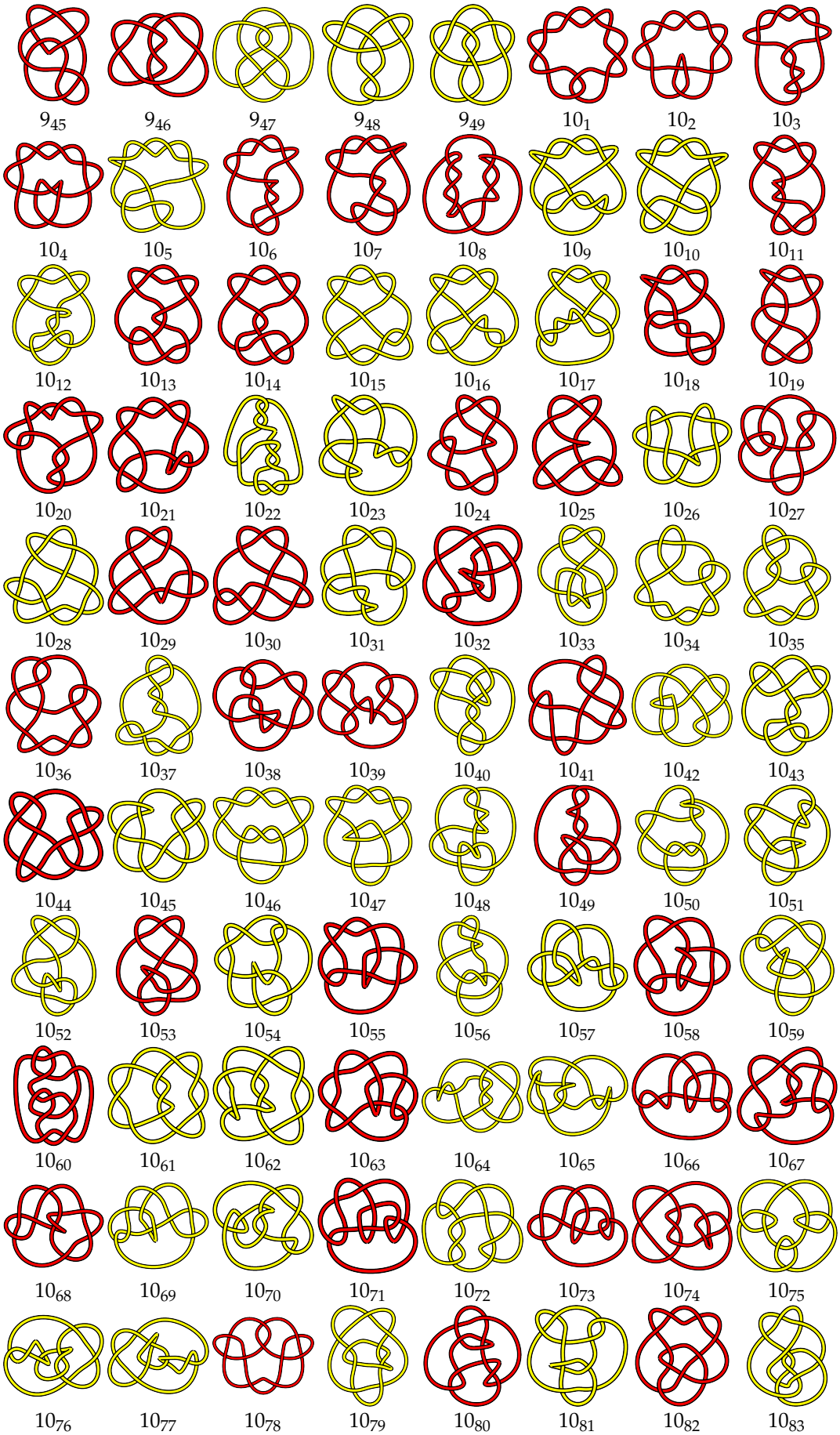
L	$\mathcal{S}_{200}(L{+}{+})$	$\mathcal{S}_{200}(L{+}{+},1)$	$\mathcal{S}_{200}(L{+}{+},2)$	Rolfsen	KP	lk(L)	Sym
0_1^2	$[-\quad -]$	$[-\quad -]$	$[-\quad -]$	0_1^2	$0_1^2{+}{+}$	0	Γ_2
2_1^2	$[-0.037\quad 0.102]$	$[-0.054\quad 0.043]$	$[-0.106\quad 0.087]$	2_1^2	$2_1^2{+}{+}$	1	$\Sigma_{8,2}$
4_1^2	$[0.755\quad 0.877]$	$[0.391\quad 0.481]$	$[0.336\quad 0.424]$	4_1^{2*}	$4_1^2{+}{-}$	2	$\Sigma_{4,1}$
5_1^2	$[1.401\quad 1.607]$	$[0.685\quad 0.844]$	$[0.657\quad 0.822]$	5_1^{2*}	$5_1^2{+}{+}$	0	$\Sigma_{8,1}$
6_1^2	$[1.624\quad 1.692]$	$[0.812\quad 0.862]$	$[0.795\quad 0.847]$	6_1^{2*}	$6_1^2{+}{+}$	3	$\Sigma_{4,1}$
6_2^2	$[-0.156\quad 0.042]$	$[-0.144\quad 0.014]$	$[-0.067\quad 0.083]$	6_2^2	$6_2^2{+}{+}$	3	$\Sigma_{8,2}$
6_3^2	$[1.957\quad 2.225]$	$[0.979\quad 1.207]$	$[0.892\quad 1.105]$	6_3^{2*}	$6_3^2{+}{-}$	2	$\Sigma_{4,1}$
7_1^2	$[2.188\quad 2.364]$	$[1.027\quad 1.167]$	$[1.109\quad 1.249]$	7_1^{2*}	$7_1^2{+}{+}$	1	$\Sigma_{4,1}$
7_2^2	$[0.413\quad 0.788]$	$[0.211\quad 0.509]$	$[0.093\quad 0.389]$	7_2^{2*}	$7_2^2{+}{-}$	1	$\Sigma_{4,1}$
7_3^2	$[2.667\quad 2.728]$	$[1.318\quad 1.373]$	$[1.324\quad 1.38]$	7_3^{2*}	$7_3^2{+}{+}$	0	$\Sigma_{8,1}$
7_4^2	$[4.292\quad 4.348]$	$[3.992\quad 4.04]$	$[0.289\quad 0.319]$	7_4^2	$7_4^{2*}{+}{+}$	0	$\Sigma_{4,2}$
7_5^2	$[2.532\quad 2.602]$	$[2.843\quad 2.904]$	$[-0.326\quad -0.286]$	7_5^{2*}	$\tau 7_5^2{+}{+}$	2	$\Sigma_{2,1}$
7_6^2	$[1.411\quad 1.445]$	$[1.381\quad 1.41]$	$[0.023\quad 0.042]$	7_6^{2*}	$\tau 7_6^2{+}{+}$	0	$\Sigma_{4,2}$
7_7^2	$[3.51\quad 3.592]$	$[3.458\quad 3.527]$	$[0.036\quad 0.081]$	7_7^2	$7_7^{2*}{+}{+}$	2	$\Sigma_{2,1}$
7_8^2	$[3.248\quad 3.324]$	$[3.304\quad 3.368]$	$[-0.07\quad -0.03]$	7_8^{2*}	$\tau 7_8^2{+}{+}$	0	$\Sigma_{4,2}$
8_1^2	$[2.443\quad 2.477]$	$[1.225\quad 1.251]$	$[1.209\quad 1.235]$	8_1^{2*}	$8_1^2{+}{-}$	4	$\Sigma_{4,1}$
8_2^2	$[0.761\quad 0.79]$	$[0.373\quad 0.396]$	$[0.379\quad 0.403]$	8_2^2	$8_2^{2*}{+}{+}$	4	$\Sigma_{4,1}$
8_3^2	$[2.861\quad 2.907]$	$[1.435\quad 1.474]$	$[1.41\quad 1.449]$	8_3^{2*}	$8_3^2{+}{+}$	3	$\Sigma_{4,1}$
8_4^2	$[0.868\quad 0.94]$	$[0.417\quad 0.476]$	$[0.429\quad 0.486]$	8_4^{2*}	$8_4^2{+}{-}$	4	$\Sigma_{4,1}$
8_5^2	$[1.171\quad 1.22]$	$[0.575\quad 0.618]$	$[0.578\quad 0.62]$	8_5^{2*}	$8_5^2{+}{+}$	3	$\Sigma_{4,1}$
8_6^2	$[3.29\quad 3.33]$	$[1.632\quad 1.671]$	$[1.639\quad 1.678]$	8_6^{2*}	$8_6^2{+}{+}$	2	$\Sigma_{4,1}$
8_7^2	$[2.829\quad 2.864]$	$[1.415\quad 1.445]$	$[1.402\quad 1.431]$	8_7^{2*}	$8_7^2{+}{-}$	1	$\Sigma_{4,1}$
8_8^2	$[-0.002\quad 0.033]$	$[0.006\quad 0.035]$	$[-0.02\quad 0.01]$	8_8^2	$8_8^2{+}{+}$	1	$\Sigma_{8,2}$
8_9^2	$[0.777\quad 0.92]$	$[0.471\quad 0.599]$	$[0.276\quad 0.35]$	8_9^2	$\tau 8_9^{2*}{+}{+}$	2	$\Sigma_{2,1}$
8_{10}^2	$[0.893\quad 0.927]$	$[0.594\quad 0.625]$	$[0.291\quad 0.309]$	8_{10}^2	$8_{10}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
8_{11}^2	$[4.944\quad 4.98]$	$[4.423\quad 4.455]$	$[0.512\quad 0.534]$	8_{11}^2	$8_{11}^{2\ *}{+}{+}$	2	$\Sigma_{2,1}$
8_{12}^2	$[1.904\quad 1.932]$	$[2.422\quad 2.447]$	$[-0.526\quad -0.508]$	$8_{12}^{2\ *}$	$8_{12}^2{+}{+}$	0	$\Sigma_{4,2}$
8_{13}^2	$[1.945\quad 2.0]$	$[1.917\quad 1.965]$	$[0.018\quad 0.046]$	$8_{13}^{2\ *}$	$8_{13}^2{+}{+}$	0	$\Sigma_{4,2}$
8_{14}^2	$[3.13\quad 3.185]$	$[3.17\quad 3.218]$	$[-0.051\quad -0.022]$	8_{14}^2	$8_{14}^{2\ *}{+}{+}$	2	$\Sigma_{2,1}$
8_{15}^2	$[0.029\quad 0.056]$	$[0.034\quad 0.048]$	$[-0.01\quad 0.014]$	8_{15}^2	$\tau 8_{15}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
8_{16}^2	$[0.188\quad 0.219]$	$[0.132\quad 0.16]$	$[0.05\quad 0.065]$	8_{16}^2	$8_{16}^{2\ *}{+}{+}$	2	$\Sigma_{2,1}$
9_1^2	$[3.001\quad 3.069]$	$[1.504\quad 1.559]$	$[1.476\quad 1.531]$	9_1^{2*}	$9_1^2{+}{-}$	2	$\Sigma_{4,1}$
9_2^2	$[0.188\quad 0.235]$	$[0.082\quad 0.12]$	$[0.091\quad 0.13]$	9_2^2	$9_2^{2*}{+}{-}$	2	$\Sigma_{4,1}$
9_3^2	$[3.473\quad 3.506]$	$[1.727\quad 1.758]$	$[1.731\quad 1.762]$	9_3^{2*}	$9_3^2{+}{-}$	1	$\Sigma_{4,1}$
9_4^2	$[3.074\quad 3.111]$	$[1.535\quad 1.565]$	$[1.527\quad 1.558]$	9_4^{2*}	$9_4^2{+}{+}$	0	$\Sigma_{8,1}$
9_5^2	$[1.359\quad 1.462]$	$[0.666\quad 0.751]$	$[0.659\quad 0.745]$	9_5^2	$9_5^{2*}{+}{+}$	0	$\Sigma_{4,1}$
9_6^2	$[1.347\quad 1.37]$	$[0.673\quad 0.692]$	$[0.666\quad 0.685]$	9_6^{2*}	$9_6^2{+}{-}$	2	$\Sigma_{4,1}$
9_7^2	$[1.475\quad 1.511]$	$[0.73\quad 0.76]$	$[0.733\quad 0.763]$	9_7^{2*}	$9_7^2{+}{-}$	2	$\Sigma_{4,1}$

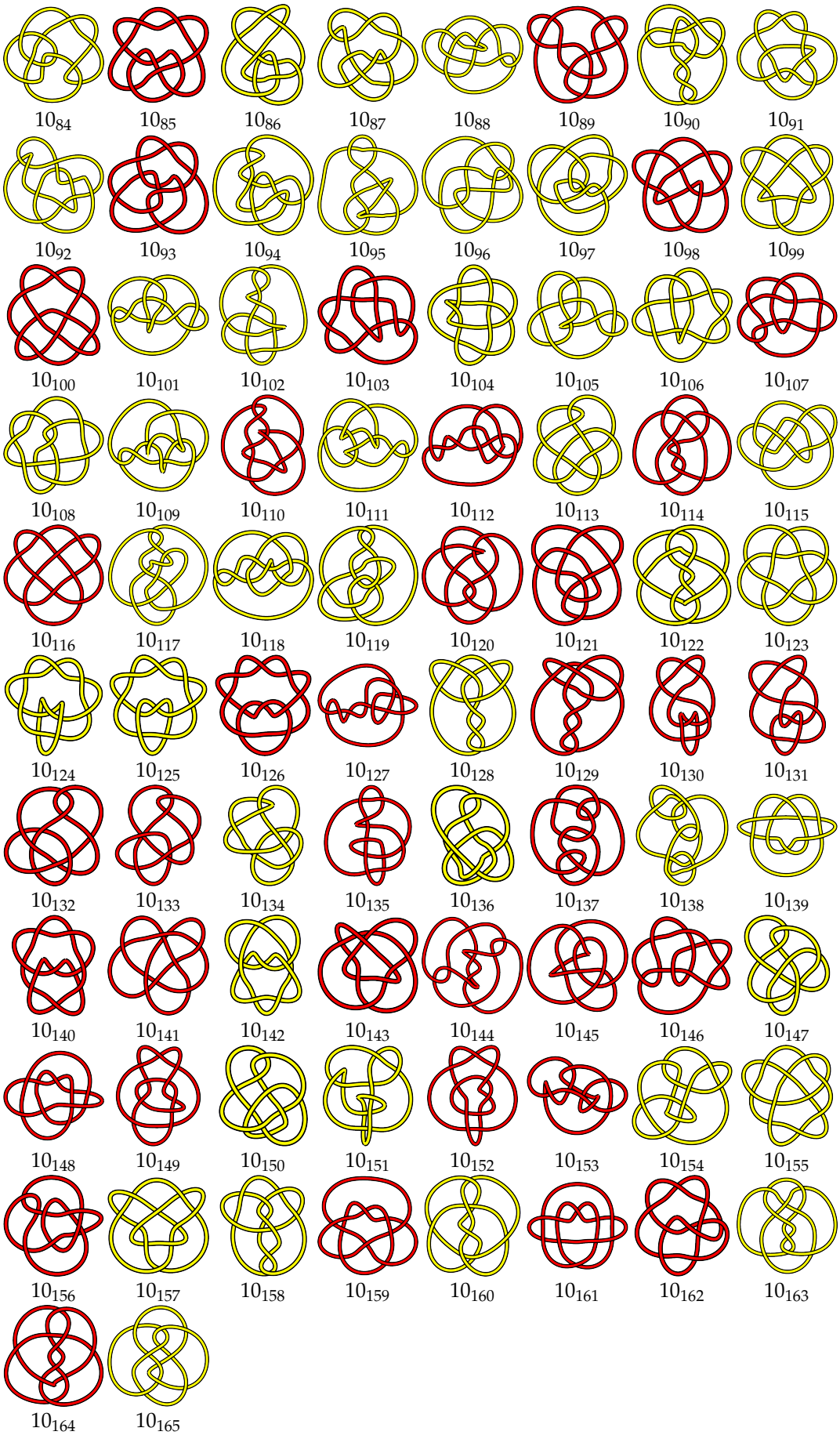
L	$\mathcal{S}_{200}(L{+}{+})$	$\mathcal{S}_{200}(L{+}{+},1)$	$\mathcal{S}_{200}(L{+}{+},2)$	Rolfsen	KP	lk(L)	Sym
9_8^2	[1.781 1.831]	[0.865 0.912]	[0.894 0.941]	9_8^{2*}	$9_8^2{+}{-}$	1	$\Sigma_{4,1}$
9_9^2	[0.279 0.324]	[0.133 0.17]	[0.131 0.169]	9_9^{2*}	$9_9^2{+}{+}$	0	$\Sigma_{8,1}$
9_{10}^2	[3.861 3.932]	[1.897 1.973]	[1.923 1.999]	$9_{10}^{2\ *}$	$9_{10}^2{+}{+}$	0	$\Sigma_{8,1}$
9_{11}^2	[3.432 3.53]	[1.708 1.798]	[1.683 1.774]	$9_{11}^{2\ *}$	$9_{11}^2{+}{-}$	1	$\Sigma_{4,1}$
9_{12}^2	[0.591 0.616]	[0.306 0.337]	[0.277 0.308]	9_{12}^2	$9_{12}^{2\ *}{+}{+}$	1	$\Sigma_{4,1}$
9_{13}^2	[7.056 7.092]	[6.737 6.769]	[0.312 0.329]	9_{13}^2	$9_{13}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
9_{14}^2	[5.336 5.36]	[5.657 5.679]	[−0.326 − 0.314]	$9_{14}^{2\ *}$	$\tau 9_{14}^2{+}{+}$	2	$\Sigma_{2,1}$
9_{15}^2	[5.399 5.415]	[5.102 5.116]	[0.294 0.302]	9_{15}^2	$\tau 9_{15}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
9_{16}^2	[3.635 3.67]	[3.947 3.978]	[−0.319 − 0.302]	$9_{16}^{2\ *}$	$\tau 9_{16}^2{+}{+}$	2	$\Sigma_{2,1}$
9_{17}^2	[3.784 3.809]	[4.092 4.115]	[−0.313 − 0.301]	$9_{17}^{2\ *}$	$\tau 9_{17}^2{+}{+}$	2	$\Sigma_{2,1}$
9_{18}^2	[5.527 5.562]	[5.21 5.241]	[0.31 0.328]	9_{18}^2	$\tau 9_{18}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
9_{19}^2	[5.089 5.106]	[4.395 4.408]	[0.691 0.701]	9_{19}^2	$\tau 9_{19}^{2\ *}{+}{+}$	1	$\Sigma_{2,1}$
9_{20}^2	[1.746 1.769]	[2.447 2.467]	[−0.706 − 0.692]	$9_{20}^{2\ *}$	$\tau 9_{20}^2{+}{+}$	3	$\Sigma_{2,1}$
9_{21}^2	[3.434 3.456]	[3.576 3.595]	[−0.148 − 0.133]	9_{21}^2	$\tau 9_{21}^{2\ *}{+}{+}$	1	$\Sigma_{2,1}$
9_{22}^2	[3.396 3.493]	[3.267 3.352]	[0.105 0.165]	$9_{22}^{2\ *}$	$\tau 9_{22}^2{+}{-}$	3	$\Sigma_{2,1}$
9_{23}^2	[0.236 0.271]	[0.105 0.134]	[0.119 0.148]	9_{23}^2	$9_{23}^{2\ *}{+}{+}$	2	$\Sigma_{4,1}$
9_{24}^2	[3.457 3.482]	[1.718 1.74]	[1.73 1.751]	$9_{24}^{2\ *}$	$9_{24}^2{+}{+}$	3	$\Sigma_{4,1}$
9_{25}^2	[1.472 1.507]	[0.947 0.979]	[0.517 0.537]	9_{25}^2	$9_{25}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
9_{26}^2	[1.552 1.576]	[1.027 1.049]	[0.518 0.533]	9_{26}^2	$9_{26}^{2\ *}{+}{+}$	2	$\Sigma_{2,1}$
9_{27}^2	[5.586 5.628]	[4.847 4.887]	[0.726 0.755]	9_{27}^2	$9_{27}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
9_{28}^2	[1.263 1.283]	[1.993 2.012]	[−0.736 − 0.722]	$9_{28}^{2\ *}$	$9_{28}^2{+}{+}$	2	$\Sigma_{2,1}$
9_{29}^2	[5.392 5.42]	[5.695 5.721]	[−0.309 − 0.295]	$9_{29}^{2\ *}$	$9_{29}^2{+}{-}$	2	$\Sigma_{2,1}$
9_{30}^2	[5.447 5.507]	[5.149 5.203]	[0.286 0.316]	9_{30}^2	$9_{30}^{2\ *}{+}{-}$	2	$\Sigma_{2,1}$
9_{31}^2	[4.183 4.213]	[4.134 4.161]	[0.043 0.058]	$9_{31}^{2\ *}$	$9_{31}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{32}^2	[2.474 2.597]	[2.452 2.561]	[−0.0 0.058]	$9_{32}^{2\ *}$	$9_{32}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{33}^2	[2.673 2.703]	[2.715 2.741]	[−0.047 − 0.033]	9_{33}^2	$9_{33}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$
9_{34}^2	[0.571 0.614]	[0.936 0.972]	[−0.375 − 0.348]	9_{34}^2	$9_{34}^{2\ *}{+}{+}$	1	$\{e\}$
9_{35}^2	[2.173 2.217]	[1.768 1.805]	[0.394 0.422]	$9_{35}^{2\ *}$	$9_{35}^2{+}{+}$	1	$\{e\}$
9_{36}^2	[0.239 0.26]	[0.188 0.207]	[0.047 0.057]	$9_{36}^{2\ *}$	$9_{36}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{37}^2	[1.363 1.405]	[1.356 1.393]	[−0.001 0.02]	$9_{37}^{2\ *}$	$9_{37}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{38}^2	[1.479 1.509]	[1.478 1.504]	[−0.004 0.011]	9_{38}^2	$9_{38}^{2\ *}{+}{-}$	2	$\Sigma_{2,1}$
9_{39}^2	[3.388 3.416]	[3.391 3.415]	[−0.01 0.008]	9_{39}^2	$9_{39}^{2\ *}{+}{+}$	1	$\{e\}$
9_{40}^2	[1.752 1.795]	[2.398 2.434]	[−0.656 − 0.629]	9_{40}^2	$9_{40}^{2\ *}{+}{+}$	3	$\Sigma_{2,1}$
9_{41}^2	[1.36 1.419]	[1.218 1.266]	[0.127 0.169]	9_{41}^2	$9_{41}^{2\ *}{+}{+}$	0	$\Sigma_{2,1}$
9_{42}^2	[0.574 0.633]	[0.792 0.842]	[−0.232 − 0.195]	9_{42}^2	$9_{42}^{2\ *}{+}{-}$	1	$\Sigma_{2,1}$
9_{43}^2	[6.236 6.318]	[6.188 6.26]	[0.033 0.073]	9_{43}^2	$9_{43}^{2\ *}{+}{-}$	2	$\Sigma_{2,1}$
9_{44}^2	[6.003 6.134]	[6.082 6.198]	[−0.101 − 0.043]	$9_{44}^{2\ *}$	$9_{44}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{45}^2	[4.63 4.706]	[4.591 4.66]	[0.025 0.06]	9_{45}^2	$\tau 9_{45}^{2\ *}{+}{+}$	2	$\Sigma_{2,1}$
9_{46}^2	[4.362 4.4]	[4.43 4.464]	[−0.074 − 0.057]	$9_{46}^{2\ *}$	$9_{46}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{47}^2	[4.595 4.634]	[4.638 4.672]	[−0.05 − 0.032]	$9_{47}^{2\ *}$	$9_{47}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{48}^2	[4.745 4.84]	[4.682 4.766]	[0.047 0.089]	9_{48}^2	$\tau 9_{48}^{2\ *}{+}{+}$	2	$\Sigma_{2,1}$
9_{49}^2	[4.083 4.166]	[3.8 3.869]	[0.266 0.314]	9_{49}^2	$\tau 9_{49}^{2\ *}{+}{-}$	3	$\Sigma_{2,1}$
9_{50}^2	[2.539 2.576]	[2.949 2.98]	[−0.418 − 0.397]	$9_{50}^{2\ *}$	$\tau 9_{50}^2{+}{-}$	1	$\Sigma_{2,1}$
9_{51}^2	[2.646 2.673]	[3.008 3.03]	[−0.368 − 0.352]	9_{51}^2	$\tau 9_{51}^{2\ *}{+}{-}$	3	$\Sigma_{2,1}$
9_{52}^2	[4.12 4.151]	[3.762 3.788]	[0.351 0.37]	$9_{52}^{2\ *}$	$\tau 9_{52}^2{+}{-}$	1	$\Sigma_{2,1}$
9_{53}^2	[2.132 2.16]	[1.07 1.09]	[1.056 1.076]	9_{53}^2	$9_{53}^{2\ *}{+}{-}$	4	$\Sigma_{4,1}$
9_{54}^2	[1.348 1.401]	[0.681 0.723]	[0.651 0.693]	$9_{54}^{2\ *}$	$9_{54}^2{+}{-}$	1	$\Sigma_{4,1}$
9_{55}^2	[6.099 6.15]	[6.157 6.202]	[−0.067 − 0.044]	$9_{55}^{2\ *}$	$9_{55}^2{+}{+}$	0	$\Sigma_{4,2}$
9_{56}^2	[4.696 4.744]	[4.65 4.692]	[0.038 0.06]	9_{56}^2	$\tau 9_{56}^{2\ *}{+}{+}$	0	$\Sigma_{4,2}$

L	$\mathcal{S}_{200}(L{+}{+})$	$\mathcal{S}_{200}(L{+}{+},1)$	$\mathcal{S}_{200}(L{+}{+},2)$	Rolfsen	KP	lk(L)	Sym
9^2_{57}	[0.563 0.593]	[0.897 0.922]	[−0.341 −0.323]	${9^2_{57}}^*$	$9^2_{57}{+}{-}$	2	$\Sigma_{2,1}$
9^2_{58}	[2.171 2.193]	[1.84 1.859]	[0.326 0.339]	9^2_{58}	${9^2_{58}}^*{+}{-}$	2	$\Sigma_{2,1}$
9^2_{59}	[6.438 6.503]	[6.413 6.471]	[0.014 0.043]	${9^2_{59}}^*$	$9^2_{59}{+}{-}$	2	$\Sigma_{2,1}$
9^2_{60}	[4.326 4.397]	[4.379 4.442]	[−0.065 −0.034]	9^2_{60}	${9^2_{60}}^*{+}{+}$	2	$\Sigma_{2,1}$
9^2_{61}	[−0.024 0.014]	[0.886 0.913]	[−0.918 −0.891]	9^2_{61}	$9^2_{61}{+}{+}$	4	$\Sigma_{4,5}$

Table S6. Table of canonical knot isotopy classes as determined by *Portillo et al.* and *Brasher et al.* extended to 9 and 10-crossing prime knots [4,5].




9_{45} 9_{46} 9_{47} 9_{48} 9_{49} 10_{1} 10_{2} 10_{3}
10_{4} 10_{5} 10_{6} 10_{7} 10_{8} 10_{9} 10_{10} 10_{11}
10_{12} 10_{13} 10_{14} 10_{15} 10_{16} 10_{17} 10_{18} 10_{19}
10_{20} 10_{21} 10_{22} 10_{23} 10_{24} 10_{25} 10_{26} 10_{27}
10_{28} 10_{29} 10_{30} 10_{31} 10_{32} 10_{33} 10_{34} 10_{35}
10_{36} 10_{37} 10_{38} 10_{39} 10_{40} 10_{41} 10_{42} 10_{43}
10_{44} 10_{45} 10_{46} 10_{47} 10_{48} 10_{49} 10_{50} 10_{51}
10_{52} 10_{53} 10_{54} 10_{55} 10_{56} 10_{57} 10_{58} 10_{59}
10_{60} 10_{61} 10_{62} 10_{63} 10_{64} 10_{65} 10_{66} 10_{67}
10_{68} 10_{69} 10_{70} 10_{71} 10_{72} 10_{73} 10_{74} 10_{75}
10_{76} 10_{77} 10_{78} 10_{79} 10_{80} 10_{81} 10_{82} 10_{83}


10_{84} 10_{85} 10_{86} 10_{87} 10_{88} 10_{89} 10_{90} 10_{91}
10_{92} 10_{93} 10_{94} 10_{95} 10_{96} 10_{97} 10_{98} 10_{99}
10_{100} 10_{101} 10_{102} 10_{103} 10_{104} 10_{105} 10_{106} 10_{107}
10_{108} 10_{109} 10_{110} 10_{111} 10_{112} 10_{113} 10_{114} 10_{115}
10_{116} 10_{117} 10_{118} 10_{119} 10_{120} 10_{121} 10_{122} 10_{123}
10_{124} 10_{125} 10_{126} 10_{127} 10_{128} 10_{129} 10_{130} 10_{131}
10_{132} 10_{133} 10_{134} 10_{135} 10_{136} 10_{137} 10_{138} 10_{139}
10_{140} 10_{141} 10_{142} 10_{143} 10_{144} 10_{145} 10_{146} 10_{147}
10_{148} 10_{149} 10_{150} 10_{151} 10_{152} 10_{153} 10_{154} 10_{155}
10_{156} 10_{157} 10_{158} 10_{159} 10_{160} 10_{161} 10_{162} 10_{163}
10_{164} 10_{165}