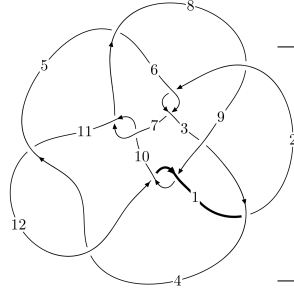
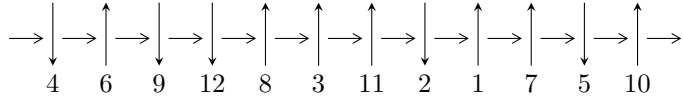


12a₀₉₃₃ (K12a₀₉₃₃)



A knot diagram¹

Linearized knot diagram



Solving Sequence

$$1,4 \xrightarrow{c_1} 2,10 \xrightarrow{c_9} 9 \xrightarrow{c_3} 3 \xrightarrow{c_8} 8 \xrightarrow{c_{12}} 12 \xrightarrow{c_4} 5 \xrightarrow{c_5} 6 \xrightarrow{c_{11}} 11 \xrightarrow{c_7} 7 \twoheadrightarrow c_2, c_6, c_{10}$$

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 7.45874 \times 10^{1495} u^{151} + 1.33532 \times 10^{1497} u^{150} + \dots + 3.64559 \times 10^{1494} b + 4.30408 \times 10^{1496}, \\ - 5.52856 \times 10^{1496} u^{151} - 9.82856 \times 10^{1497} u^{150} + \dots + 3.64559 \times 10^{1494} a - 1.60537 \times 10^{1497}, \\ u^{152} + 18u^{151} + \dots + 39u + 1 \rangle$$

$$I_2^u = \langle 2.35650 \times 10^{100} u^{38} - 3.38206 \times 10^{100} u^{37} + \dots + 3.27749 \times 10^{101} b + 1.72182 \times 10^{102}, \\ 9.76286 \times 10^{101} u^{38} - 8.69104 \times 10^{101} u^{37} + \dots + 3.27749 \times 10^{101} a + 9.71584 \times 10^{102}, u^{39} - u^{38} + \dots + 28u \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 191 representations.

¹The image of knot diagram is generated by the software “**Draw programme**” developed by Andrew Bartholomew(<http://www.layer8.co.uk/maths/draw/index.htm#Running-draw>), where we modified some parts for our purpose(<https://github.com/CATsTAILs/LinksPainter>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

$$\mathbf{I. } I_1^u = \langle 7.46 \times 10^{1495} u^{151} + 1.34 \times 10^{1497} u^{150} + \dots + 3.65 \times 10^{1494} b + 4.30 \times 10^{1496}, -5.53 \times 10^{1496} u^{151} - 9.83 \times 10^{1497} u^{150} + \dots + 3.65 \times 10^{1494} a - 1.61 \times 10^{1497}, u^{152} + 18u^{151} + \dots + 39u + 1 \rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 151.651u^{151} + 2696.01u^{150} + \dots + 17353.5u + 440.358 \\ -20.4596u^{151} - 366.282u^{150} + \dots - 4076.80u - 118.063 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 172.110u^{151} + 3062.29u^{150} + \dots + 21430.3u + 558.421 \\ -20.4596u^{151} - 366.282u^{150} + \dots - 4076.80u - 118.063 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 319.100u^{151} + 5726.02u^{150} + \dots + 85918.0u + 2583.86 \\ -11.0235u^{151} - 194.799u^{150} + \dots - 924.820u - 30.9225 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 146.852u^{151} + 2609.75u^{150} + \dots + 16133.8u + 404.669 \\ -19.8946u^{151} - 356.472u^{150} + \dots - 4133.32u - 120.159 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -3.32451u^{151} - 57.0384u^{150} + \dots + 6814.87u + 268.841 \\ -34.2470u^{151} - 602.620u^{150} + \dots - 849.480u - 12.3166 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 157.788u^{151} + 2843.03u^{150} + \dots + 54408.2u + 1659.71 \\ 36.0042u^{151} + 647.930u^{150} + \dots + 7325.33u + 201.311 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 60.6871u^{151} + 1097.66u^{150} + \dots + 31667.6u + 1035.03 \\ -2.47249u^{151} - 46.0628u^{150} + \dots - 1190.55u - 36.7659 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 679.004u^{151} + 12120.8u^{150} + \dots + 112833.u + 3113.90 \\ 25.1544u^{151} + 447.720u^{150} + \dots + 877.076u - 0.217198 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -676.104u^{151} - 12070.4u^{150} + \dots - 113192.u - 3126.36 \\ -10.1138u^{151} - 181.931u^{150} + \dots - 69.6124u + 18.2014 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $320.886u^{151} + 5727.00u^{150} + \dots + 47503.8u + 1336.04$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{152} - 18u^{151} + \dots - 39u + 1$
c_2, c_6	$u^{152} - 3u^{151} + \dots + 225401u - 8611$
c_3	$u^{152} - u^{151} + \dots - 15926u - 2857$
c_4, c_{11}	$u^{152} + 2u^{151} + \dots - 7903029u + 617167$
c_5	$u^{152} + 5u^{151} + \dots + 305455361572u + 24617683931$
c_7, c_{10}	$u^{152} + 6u^{151} + \dots - 4623182u + 1967081$
c_8	$u^{152} + 3u^{151} + \dots + 438574749u - 20742433$
c_9, c_{12}	$u^{152} + 9u^{151} + \dots - 369447u + 44911$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{152} + 56y^{151} + \dots + 23y + 1$
c_2, c_6	$y^{152} - 101y^{151} + \dots - 16415773991y + 74149321$
c_3	$y^{152} - 39y^{151} + \dots - 753263922y + 8162449$
c_4, c_{11}	$y^{152} + 124y^{151} + \dots - 8121102240761y + 380895105889$
c_5	$y^{152} - 63y^{151} + \dots - 2.20 \times 10^{22}y + 6.06 \times 10^{20}$
c_7, c_{10}	$y^{152} - 96y^{151} + \dots - 110104889750638y + 3869407660561$
c_8	$y^{152} + 29y^{151} + \dots + 22531234880768715y + 430248526759489$
c_9, c_{12}	$y^{152} + 79y^{151} + \dots - 258835027171y + 2016997921$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.935275 + 0.382584I$		
$a = 0.08390 + 1.52785I$	$1.99484 + 7.85089I$	0
$b = 0.65486 + 1.28889I$		
$u = -0.935275 - 0.382584I$		
$a = 0.08390 - 1.52785I$	$1.99484 - 7.85089I$	0
$b = 0.65486 - 1.28889I$		
$u = -0.233837 + 0.951544I$		
$a = 0.84492 + 1.22874I$	$5.20569 + 4.08312I$	0
$b = 0.011769 - 0.796786I$		
$u = -0.233837 - 0.951544I$		
$a = 0.84492 - 1.22874I$	$5.20569 - 4.08312I$	0
$b = 0.011769 + 0.796786I$		
$u = -0.281681 + 0.898653I$		
$a = -1.43264 - 1.13703I$	$6.18918 + 3.73765I$	0
$b = 0.171388 + 1.015400I$		
$u = -0.281681 - 0.898653I$		
$a = -1.43264 + 1.13703I$	$6.18918 - 3.73765I$	0
$b = 0.171388 - 1.015400I$		
$u = -0.679834 + 0.648725I$		
$a = 0.204352 - 0.815495I$	$6.54096 - 3.13281I$	0
$b = -0.553882 + 0.286722I$		
$u = -0.679834 - 0.648725I$		
$a = 0.204352 + 0.815495I$	$6.54096 + 3.13281I$	0
$b = -0.553882 - 0.286722I$		
$u = -0.916063 + 0.201408I$		
$a = -0.470095 + 1.330040I$	$-3.67199 - 2.16904I$	0
$b = 0.141253 + 1.252060I$		
$u = -0.916063 - 0.201408I$		
$a = -0.470095 - 1.330040I$	$-3.67199 + 2.16904I$	0
$b = 0.141253 - 1.252060I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.370334 + 0.995863I$ $a = -0.073221 - 0.365053I$ $b = -0.948877 + 0.133965I$	$3.19199 - 2.62186I$	0
$u = 0.370334 - 0.995863I$ $a = -0.073221 + 0.365053I$ $b = -0.948877 - 0.133965I$	$3.19199 + 2.62186I$	0
$u = 0.160558 + 1.079900I$ $a = 0.185601 + 0.556425I$ $b = 0.766670 - 0.185969I$	$6.41663 + 2.23215I$	0
$u = 0.160558 - 1.079900I$ $a = 0.185601 - 0.556425I$ $b = 0.766670 + 0.185969I$	$6.41663 - 2.23215I$	0
$u = -0.721807 + 0.549581I$ $a = -0.489303 - 0.074539I$ $b = 0.659359 - 0.257865I$	$1.42163 + 4.80254I$	0
$u = -0.721807 - 0.549581I$ $a = -0.489303 + 0.074539I$ $b = 0.659359 + 0.257865I$	$1.42163 - 4.80254I$	0
$u = 0.811230 + 0.754642I$ $a = 0.466320 + 0.975953I$ $b = -0.52368 + 1.41851I$	$-1.90553 - 6.31711I$	0
$u = 0.811230 - 0.754642I$ $a = 0.466320 - 0.975953I$ $b = -0.52368 - 1.41851I$	$-1.90553 + 6.31711I$	0
$u = 1.058100 + 0.348509I$ $a = -0.608381 - 0.934220I$ $b = 0.341759 - 1.058760I$	$-3.68720 - 1.29648I$	0
$u = 1.058100 - 0.348509I$ $a = -0.608381 + 0.934220I$ $b = 0.341759 + 1.058760I$	$-3.68720 + 1.29648I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.644387 + 0.911067I$		
$a = 0.191002 - 0.267681I$	$11.0260 + 13.0923I$	0
$b = 1.375100 - 0.141524I$		
$u = -0.644387 - 0.911067I$		
$a = 0.191002 + 0.267681I$	$11.0260 - 13.0923I$	0
$b = 1.375100 + 0.141524I$		
$u = 0.854784 + 0.724708I$		
$a = 0.168650 + 0.435813I$	$1.84334 - 2.87370I$	0
$b = -0.546254 + 0.152476I$		
$u = 0.854784 - 0.724708I$		
$a = 0.168650 - 0.435813I$	$1.84334 + 2.87370I$	0
$b = -0.546254 - 0.152476I$		
$u = -0.504912 + 1.020440I$		
$a = 0.872696 - 0.362187I$	$-0.58647 + 6.32932I$	0
$b = -0.512736 - 1.194000I$		
$u = -0.504912 - 1.020440I$		
$a = 0.872696 + 0.362187I$	$-0.58647 - 6.32932I$	0
$b = -0.512736 + 1.194000I$		
$u = -0.868184 + 0.738801I$		
$a = 0.289552 - 0.480800I$	$6.34019 + 8.45382I$	0
$b = -0.904556 - 0.249326I$		
$u = -0.868184 - 0.738801I$		
$a = 0.289552 + 0.480800I$	$6.34019 - 8.45382I$	0
$b = -0.904556 + 0.249326I$		
$u = -0.600112 + 0.980099I$		
$a = -1.008520 + 0.584348I$	$-0.98376 + 1.06441I$	0
$b = 0.311504 + 1.177840I$		
$u = -0.600112 - 0.980099I$		
$a = -1.008520 - 0.584348I$	$-0.98376 - 1.06441I$	0
$b = 0.311504 - 1.177840I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.520493 + 1.025400I$		
$a = 0.222025 + 0.232359I$	$7.51782 - 7.30521I$	0
$b = 1.136520 + 0.026847I$		
$u = 0.520493 - 1.025400I$		
$a = 0.222025 - 0.232359I$	$7.51782 + 7.30521I$	0
$b = 1.136520 - 0.026847I$		
$u = 0.078428 + 1.162160I$		
$a = -0.082573 - 0.426293I$	$10.00370 - 5.64491I$	0
$b = 0.744457 + 0.771748I$		
$u = 0.078428 - 1.162160I$		
$a = -0.082573 + 0.426293I$	$10.00370 + 5.64491I$	0
$b = 0.744457 - 0.771748I$		
$u = -0.497986 + 0.667887I$		
$a = 2.07027 - 1.14040I$	$5.11645 + 0.63264I$	0
$b = -0.420190 - 0.870978I$		
$u = -0.497986 - 0.667887I$		
$a = 2.07027 + 1.14040I$	$5.11645 - 0.63264I$	0
$b = -0.420190 + 0.870978I$		
$u = -0.546708 + 1.033890I$		
$a = 0.487242 - 0.214922I$	$1.88749 - 4.73534I$	0
$b = 0.365490 - 0.975410I$		
$u = -0.546708 - 1.033890I$		
$a = 0.487242 + 0.214922I$	$1.88749 + 4.73534I$	0
$b = 0.365490 + 0.975410I$		
$u = 0.729651 + 0.914947I$		
$a = 0.693621 + 0.506734I$	$-1.78719 - 3.48751I$	0
$b = -0.448081 + 1.154430I$		
$u = 0.729651 - 0.914947I$		
$a = 0.693621 - 0.506734I$	$-1.78719 + 3.48751I$	0
$b = -0.448081 - 1.154430I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.190270 + 0.004013I$ $a = -0.257506 + 1.264490I$ $b = -0.536928 + 1.153270I$	$-0.78586 - 2.01558I$	0
$u = -1.190270 - 0.004013I$ $a = -0.257506 - 1.264490I$ $b = -0.536928 - 1.153270I$	$-0.78586 + 2.01558I$	0
$u = 1.193610 + 0.075141I$ $a = 0.80882 + 1.66380I$ $b = 0.172551 + 0.925925I$	$0.88957 + 3.10119I$	0
$u = 1.193610 - 0.075141I$ $a = 0.80882 - 1.66380I$ $b = 0.172551 - 0.925925I$	$0.88957 - 3.10119I$	0
$u = 0.775884 + 0.116844I$ $a = 0.017547 - 1.196340I$ $b = 1.26055 - 0.78742I$	$6.15017 + 2.58736I$	0
$u = 0.775884 - 0.116844I$ $a = 0.017547 + 1.196340I$ $b = 1.26055 + 0.78742I$	$6.15017 - 2.58736I$	0
$u = -0.645640 + 1.034180I$ $a = -0.055838 + 0.438883I$ $b = -1.030240 + 0.147900I$	$6.48084 + 7.16637I$	0
$u = -0.645640 - 1.034180I$ $a = -0.055838 - 0.438883I$ $b = -1.030240 - 0.147900I$	$6.48084 - 7.16637I$	0
$u = -0.375063 + 0.658711I$ $a = -0.0404358 + 0.0519131I$ $b = -1.242610 + 0.335553I$	$3.63591 + 0.77560I$	0
$u = -0.375063 - 0.658711I$ $a = -0.0404358 - 0.0519131I$ $b = -1.242610 - 0.335553I$	$3.63591 - 0.77560I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.648280 + 0.383759I$		
$a = 0.74745 - 1.57356I$	$-2.75063 + 2.91296I$	0
$b = -0.266176 - 1.246510I$		
$u = -0.648280 - 0.383759I$		
$a = 0.74745 + 1.57356I$	$-2.75063 - 2.91296I$	0
$b = -0.266176 + 1.246510I$		
$u = -0.145963 + 1.249030I$		
$a = 0.072930 + 0.252364I$	$6.80014 - 0.98524I$	0
$b = -0.708252 - 0.331805I$		
$u = -0.145963 - 1.249030I$		
$a = 0.072930 - 0.252364I$	$6.80014 + 0.98524I$	0
$b = -0.708252 + 0.331805I$		
$u = 0.414206 + 0.594935I$		
$a = 0.23464 - 2.96723I$	$8.48399 + 1.23029I$	0
$b = 0.280906 - 0.854234I$		
$u = 0.414206 - 0.594935I$		
$a = 0.23464 + 2.96723I$	$8.48399 - 1.23029I$	0
$b = 0.280906 + 0.854234I$		
$u = -0.904350 + 0.905008I$		
$a = -0.436913 + 1.188460I$	$1.28325 + 10.77160I$	0
$b = 0.80150 + 1.25250I$		
$u = -0.904350 - 0.905008I$		
$a = -0.436913 - 1.188460I$	$1.28325 - 10.77160I$	0
$b = 0.80150 - 1.25250I$		
$u = 0.647809 + 0.303687I$		
$a = -0.786308 + 0.053820I$	$-1.18968 - 0.88706I$	0
$b = 0.334031 + 0.043604I$		
$u = 0.647809 - 0.303687I$		
$a = -0.786308 - 0.053820I$	$-1.18968 + 0.88706I$	0
$b = 0.334031 - 0.043604I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.163316 + 0.665238I$ $a = -0.387465 - 0.223752I$ $b = -0.546044 + 0.408136I$	$0.68504 - 1.82504I$	0
$u = 0.163316 - 0.665238I$ $a = -0.387465 + 0.223752I$ $b = -0.546044 - 0.408136I$	$0.68504 + 1.82504I$	0
$u = 1.011650 + 0.845123I$ $a = 0.89768 + 1.43016I$ $b = -0.335016 + 1.227380I$	$-2.13872 - 6.18708I$	0
$u = 1.011650 - 0.845123I$ $a = 0.89768 - 1.43016I$ $b = -0.335016 - 1.227380I$	$-2.13872 + 6.18708I$	0
$u = 0.889906 + 0.974652I$ $a = 0.366955 + 1.040480I$ $b = -0.53617 + 1.48658I$	$-1.88884 - 6.43571I$	0
$u = 0.889906 - 0.974652I$ $a = 0.366955 - 1.040480I$ $b = -0.53617 - 1.48658I$	$-1.88884 + 6.43571I$	0
$u = -0.885949 + 1.011380I$ $a = 0.536120 - 1.226330I$ $b = -0.63136 - 1.31120I$	$0.31397 + 7.30280I$	0
$u = -0.885949 - 1.011380I$ $a = 0.536120 + 1.226330I$ $b = -0.63136 + 1.31120I$	$0.31397 - 7.30280I$	0
$u = 0.207735 + 0.615939I$ $a = 1.11684 + 2.51065I$ $b = -0.436976 + 1.000520I$	$4.74461 - 5.18455I$	0
$u = 0.207735 - 0.615939I$ $a = 1.11684 - 2.51065I$ $b = -0.436976 - 1.000520I$	$4.74461 + 5.18455I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.912815 + 1.002290I$ $a = -0.260755 + 0.991715I$ $b = -0.180304 + 1.370620I$	$1.50947 - 5.83631I$	0
$u = -0.912815 - 1.002290I$ $a = -0.260755 - 0.991715I$ $b = -0.180304 - 1.370620I$	$1.50947 + 5.83631I$	0
$u = 1.272840 + 0.504028I$ $a = -0.031400 - 1.196700I$ $b = 0.77492 - 1.33716I$	$3.74983 - 10.30020I$	0
$u = 1.272840 - 0.504028I$ $a = -0.031400 + 1.196700I$ $b = 0.77492 + 1.33716I$	$3.74983 + 10.30020I$	0
$u = -0.902628 + 1.038890I$ $a = 0.228435 - 0.681683I$ $b = 0.882294 - 0.638210I$	$10.97600 + 0.52377I$	0
$u = -0.902628 - 1.038890I$ $a = 0.228435 + 0.681683I$ $b = 0.882294 + 0.638210I$	$10.97600 - 0.52377I$	0
$u = 0.915533 + 1.043450I$ $a = -0.742379 - 0.657864I$ $b = 0.127184 - 1.351910I$	$-1.59406 - 0.36141I$	0
$u = 0.915533 - 1.043450I$ $a = -0.742379 + 0.657864I$ $b = 0.127184 + 1.351910I$	$-1.59406 + 0.36141I$	0
$u = -0.620964 + 1.245300I$ $a = 0.183858 - 0.191111I$ $b = 0.873971 - 0.340419I$	$12.55830 + 2.20360I$	0
$u = -0.620964 - 1.245300I$ $a = 0.183858 + 0.191111I$ $b = 0.873971 + 0.340419I$	$12.55830 - 2.20360I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.05267 + 0.94865I$ $a = -0.269627 - 1.132980I$ $b = 0.74147 - 1.29615I$	$0.35903 - 6.16168I$	0
$u = 1.05267 - 0.94865I$ $a = -0.269627 + 1.132980I$ $b = 0.74147 + 1.29615I$	$0.35903 + 6.16168I$	0
$u = -0.486605 + 0.314191I$ $a = 0.14276 + 2.04441I$ $b = 0.726670 + 0.979494I$	$3.82035 - 0.68763I$	0
$u = -0.486605 - 0.314191I$ $a = 0.14276 - 2.04441I$ $b = 0.726670 - 0.979494I$	$3.82035 + 0.68763I$	0
$u = 0.161493 + 0.544438I$ $a = -2.33443 - 2.79550I$ $b = 0.559917 - 0.902548I$	$9.5218 - 10.6544I$	0
$u = 0.161493 - 0.544438I$ $a = -2.33443 + 2.79550I$ $b = 0.559917 + 0.902548I$	$9.5218 + 10.6544I$	0
$u = -0.96880 + 1.05731I$ $a = 0.852637 - 1.079550I$ $b = -0.435330 - 1.314710I$	$1.71307 + 13.07760I$	0
$u = -0.96880 - 1.05731I$ $a = 0.852637 + 1.079550I$ $b = -0.435330 + 1.314710I$	$1.71307 - 13.07760I$	0
$u = 1.24648 + 0.71844I$ $a = -0.721666 - 0.907415I$ $b = 0.067604 - 1.056210I$	$-3.77581 - 0.51652I$	0
$u = 1.24648 - 0.71844I$ $a = -0.721666 + 0.907415I$ $b = 0.067604 + 1.056210I$	$-3.77581 + 0.51652I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.547000$ $a = 0.150720$ $b = -1.31164$	2.94559	0
$u = 1.46038 + 0.09923I$ $a = -0.011323 + 1.136900I$ $b = -0.726965 + 1.019070I$	$-0.62153 - 2.91268I$	0
$u = 1.46038 - 0.09923I$ $a = -0.011323 - 1.136900I$ $b = -0.726965 - 1.019070I$	$-0.62153 + 2.91268I$	0
$u = -0.403512 + 0.352042I$ $a = -1.30155 + 2.93855I$ $b = 0.539081 + 0.450358I$	$3.35404 - 1.12833I$	0
$u = -0.403512 - 0.352042I$ $a = -1.30155 - 2.93855I$ $b = 0.539081 - 0.450358I$	$3.35404 + 1.12833I$	0
$u = -0.280879 + 0.454677I$ $a = -1.83157 + 0.18205I$ $b = 0.092745 - 0.252971I$	$1.96151 - 1.15179I$	0
$u = -0.280879 - 0.454677I$ $a = -1.83157 - 0.18205I$ $b = 0.092745 + 0.252971I$	$1.96151 + 1.15179I$	0
$u = 1.11368 + 0.97691I$ $a = -0.679328 - 1.013960I$ $b = 0.230785 - 1.136840I$	$-4.18944 - 3.16734I$	0
$u = 1.11368 - 0.97691I$ $a = -0.679328 + 1.013960I$ $b = 0.230785 + 1.136840I$	$-4.18944 + 3.16734I$	0
$u = -1.06021 + 1.04015I$ $a = -0.690830 + 0.958824I$ $b = 0.395163 + 1.125760I$	$-1.13533 + 8.72961I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.06021 - 1.04015I$		
$a = -0.690830 - 0.958824I$	$-1.13533 - 8.72961I$	0
$b = 0.395163 - 1.125760I$		
$u = -0.465085 + 0.084489I$		
$a = -0.369601 + 1.073610I$	$3.68589 + 1.67525I$	0
$b = -1.08011 + 1.78585I$		
$u = -0.465085 - 0.084489I$		
$a = -0.369601 - 1.073610I$	$3.68589 - 1.67525I$	0
$b = -1.08011 - 1.78585I$		
$u = 1.21558 + 0.97941I$		
$a = 0.247984 + 1.218830I$	$-4.12830 - 5.19417I$	0
$b = -0.345740 + 1.290430I$		
$u = 1.21558 - 0.97941I$		
$a = 0.247984 - 1.218830I$	$-4.12830 + 5.19417I$	0
$b = -0.345740 - 1.290430I$		
$u = 0.78065 + 1.37071I$		
$a = 0.257680 + 0.406258I$	$1.22298 - 1.36266I$	0
$b = 0.136914 + 0.818743I$		
$u = 0.78065 - 1.37071I$		
$a = 0.257680 - 0.406258I$	$1.22298 + 1.36266I$	0
$b = 0.136914 - 0.818743I$		
$u = -1.59400 + 0.07216I$		
$a = 0.64309 - 1.29713I$	$7.84798 + 8.16268I$	0
$b = 0.158468 - 0.677908I$		
$u = -1.59400 - 0.07216I$		
$a = 0.64309 + 1.29713I$	$7.84798 - 8.16268I$	0
$b = 0.158468 + 0.677908I$		
$u = -1.18356 + 1.09877I$		
$a = -0.28026 + 1.49392I$	$10.00960 + 7.25143I$	0
$b = 0.514646 + 1.150300I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.18356 - 1.09877I$ $a = -0.28026 - 1.49392I$ $b = 0.514646 - 1.150300I$	$10.00960 - 7.25143I$	0
$u = -0.12593 + 1.61831I$ $a = 0.204006 - 0.004052I$ $b = -0.002941 - 0.769700I$	$7.17705 - 2.82884I$	0
$u = -0.12593 - 1.61831I$ $a = 0.204006 + 0.004052I$ $b = -0.002941 + 0.769700I$	$7.17705 + 2.82884I$	0
$u = 0.017343 + 0.366067I$ $a = 0.66291 - 1.48503I$ $b = -0.553947 - 0.215657I$	$1.47735 + 0.27324I$	0
$u = 0.017343 - 0.366067I$ $a = 0.66291 + 1.48503I$ $b = -0.553947 + 0.215657I$	$1.47735 - 0.27324I$	0
$u = -0.09706 + 1.64691I$ $a = -0.110543 - 0.957147I$ $b = -0.051572 - 1.107060I$	$0.036270 - 0.754360I$	0
$u = -0.09706 - 1.64691I$ $a = -0.110543 + 0.957147I$ $b = -0.051572 + 1.107060I$	$0.036270 + 0.754360I$	0
$u = -0.307499 + 0.163241I$ $a = -0.47069 - 3.49350I$ $b = -0.463097 - 1.093890I$	$0.23437 + 2.48943I$	0
$u = -0.307499 - 0.163241I$ $a = -0.47069 + 3.49350I$ $b = -0.463097 + 1.093890I$	$0.23437 - 2.48943I$	0
$u = 0.31028 + 1.64740I$ $a = 0.198130 + 0.055813I$ $b = 0.203485 + 0.956734I$	$8.26479 + 3.28704I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.31028 - 1.64740I$ $a = 0.198130 - 0.055813I$ $b = 0.203485 - 0.956734I$	$8.26479 - 3.28704I$	0
$u = -1.16397 + 1.23378I$ $a = -0.324732 + 1.215550I$ $b = 0.66772 + 1.37589I$	$7.1262 + 20.0565I$	0
$u = -1.16397 - 1.23378I$ $a = -0.324732 - 1.215550I$ $b = 0.66772 - 1.37589I$	$7.1262 - 20.0565I$	0
$u = -0.190750 + 0.234634I$ $a = 2.99491 - 1.54520I$ $b = -0.747436 + 0.400103I$	$2.18309 + 1.46498I$	$4.16818 - 3.49972I$
$u = -0.190750 - 0.234634I$ $a = 2.99491 + 1.54520I$ $b = -0.747436 - 0.400103I$	$2.18309 - 1.46498I$	$4.16818 + 3.49972I$
$u = 1.17193 + 1.23191I$ $a = -0.270649 - 1.283100I$ $b = 0.57351 - 1.34339I$	$3.44756 - 13.29700I$	0
$u = 1.17193 - 1.23191I$ $a = -0.270649 + 1.283100I$ $b = 0.57351 + 1.34339I$	$3.44756 + 13.29700I$	0
$u = -0.207601 + 0.172114I$ $a = 0.70550 + 1.60314I$ $b = 0.97894 + 2.53406I$	$3.13931 - 2.22445I$	$-5.5741 - 46.7303I$
$u = -0.207601 - 0.172114I$ $a = 0.70550 - 1.60314I$ $b = 0.97894 - 2.53406I$	$3.13931 + 2.22445I$	$-5.5741 + 46.7303I$
$u = 0.258492$ $a = -10.0700$ $b = -0.0786574$	3.82946	-71.1100

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.149195 + 0.167472I$ $a = 0.43058 + 8.90489I$ $b = 0.299184 + 1.032280I$	$3.49034 + 5.67599I$	$5.58049 - 9.56883I$
$u = -0.149195 - 0.167472I$ $a = 0.43058 - 8.90489I$ $b = 0.299184 - 1.032280I$	$3.49034 - 5.67599I$	$5.58049 + 9.56883I$
$u = 1.10638 + 1.41654I$ $a = 0.192681 + 1.140340I$ $b = -0.43505 + 1.35765I$	$-1.47650 - 7.55686I$	0
$u = 1.10638 - 1.41654I$ $a = 0.192681 - 1.140340I$ $b = -0.43505 - 1.35765I$	$-1.47650 + 7.55686I$	0
$u = 0.119634 + 0.155751I$ $a = 1.27070 + 0.78266I$ $b = 3.19410 + 0.73261I$	$3.34818 + 2.20925I$	$31.9788 + 91.6608I$
$u = 0.119634 - 0.155751I$ $a = 1.27070 - 0.78266I$ $b = 3.19410 - 0.73261I$	$3.34818 - 2.20925I$	$31.9788 - 91.6608I$
$u = -1.51948 + 1.02745I$ $a = -0.117529 + 1.235160I$ $b = 0.573793 + 1.036650I$	$9.57895 + 5.91037I$	0
$u = -1.51948 - 1.02745I$ $a = -0.117529 - 1.235160I$ $b = 0.573793 - 1.036650I$	$9.57895 - 5.91037I$	0
$u = -0.044748 + 0.158506I$ $a = 3.78888 + 1.31530I$ $b = -1.12424 + 1.11528I$	$2.20408 + 1.64225I$	$5.90303 + 2.91632I$
$u = -0.044748 - 0.158506I$ $a = 3.78888 - 1.31530I$ $b = -1.12424 - 1.11528I$	$2.20408 - 1.64225I$	$5.90303 - 2.91632I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.28625 + 1.31164I$ $a = 0.246969 - 1.171390I$ $b = -0.577938 - 1.288940I$	$2.94441 + 12.92850I$	0
$u = -1.28625 - 1.31164I$ $a = 0.246969 + 1.171390I$ $b = -0.577938 + 1.288940I$	$2.94441 - 12.92850I$	0
$u = -0.139313 + 0.068909I$ $a = -14.7687 + 6.0635I$ $b = 0.082647 - 0.802912I$	$7.05372 + 2.37538I$	$12.99741 + 3.23215I$
$u = -0.139313 - 0.068909I$ $a = -14.7687 - 6.0635I$ $b = 0.082647 + 0.802912I$	$7.05372 - 2.37538I$	$12.99741 - 3.23215I$
$u = -1.46605 + 1.12363I$ $a = -0.394671 + 1.030860I$ $b = -0.046187 + 0.891074I$	$0.736565 - 0.832997I$	0
$u = -1.46605 - 1.12363I$ $a = -0.394671 - 1.030860I$ $b = -0.046187 - 0.891074I$	$0.736565 + 0.832997I$	0
$u = -1.81882 + 1.33517I$ $a = 0.369790 - 0.828597I$ $b = 0.257955 - 1.041910I$	$6.49444 - 10.24100I$	0
$u = -1.81882 - 1.33517I$ $a = 0.369790 + 0.828597I$ $b = 0.257955 + 1.041910I$	$6.49444 + 10.24100I$	0
$u = -3.75199 + 0.69935I$ $a = -0.151485 - 1.101270I$ $b = -0.127502 - 0.997082I$	$2.16840 + 0.42004I$	0
$u = -3.75199 - 0.69935I$ $a = -0.151485 + 1.101270I$ $b = -0.127502 + 0.997082I$	$2.16840 - 0.42004I$	0

	Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$2.13874 + 6.39227I$		
$a =$	$0.021968 - 1.056990I$	$1.88465 + 0.35470I$	0
$b =$	$0.038691 - 1.084290I$		
$u =$	$2.13874 - 6.39227I$		
$a =$	$0.021968 + 1.056990I$	$1.88465 - 0.35470I$	0
$b =$	$0.038691 + 1.084290I$		

$$\text{II. } I_2^u = \langle 2.36 \times 10^{100} u^{38} - 3.38 \times 10^{100} u^{37} + \dots + 3.28 \times 10^{101} b + 1.72 \times 10^{102}, 9.76 \times 10^{101} u^{38} - 8.69 \times 10^{101} u^{37} + \dots + 3.28 \times 10^{101} a + 9.72 \times 10^{102}, u^{39} - u^{38} + \dots + 28u - 1 \rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2.97876u^{38} + 2.65174u^{37} + \dots + 552.060u - 29.6442 \\ -0.0718996u^{38} + 0.103190u^{37} + \dots + 50.2370u - 5.25346 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2.90686u^{38} + 2.54855u^{37} + \dots + 501.823u - 24.3907 \\ -0.0718996u^{38} + 0.103190u^{37} + \dots + 50.2370u - 5.25346 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.48542u^{38} - 1.12890u^{37} + \dots - 120.394u + 1.98643 \\ 0.324392u^{38} - 0.296829u^{37} + \dots - 71.0152u + 3.63312 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2.93077u^{38} + 2.61014u^{37} + \dots + 544.934u - 29.2858 \\ -0.0692275u^{38} + 0.101796u^{37} + \dots + 49.1579u - 5.21577 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 4.80139u^{38} - 4.42806u^{37} + \dots - 980.350u + 50.4982 \\ 1.16827u^{38} - 1.11933u^{37} + \dots - 275.449u + 19.7860 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.208866u^{38} - 0.371040u^{37} + \dots - 210.395u + 26.9189 \\ -2.08899u^{38} + 1.90847u^{37} + \dots + 387.382u - 16.9737 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.612805u^{38} - 0.345226u^{37} + \dots + 37.6258u - 6.30508 \\ 0.259490u^{38} - 0.239913u^{37} + \dots - 47.4001u + 1.76883 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.30252u^{38} + 1.17247u^{37} + \dots + 251.863u - 13.7619 \\ -0.0697740u^{38} + 0.0835789u^{37} + \dots + 35.2020u - 3.21810 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.60429u^{38} + 1.41814u^{37} + \dots + 290.554u - 15.1706 \\ -0.0396296u^{38} + 0.0543709u^{37} + \dots + 23.3842u - 2.45425 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $-5.08629u^{38} + 5.17271u^{37} + \dots + 1407.44u - 84.7286$

(iv) u -Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{39} - u^{38} + \dots + 28u - 1$
c_2	$u^{39} - 14u^{37} + \dots - 2u + 1$
c_3	$u^{39} - 13u^{37} + \dots - 13u - 1$
c_4	$u^{39} - u^{38} + \dots - 2u^2 - 1$
c_5	$u^{39} + 14u^{38} + \dots - 29u - 1$
c_6	$u^{39} - 14u^{37} + \dots - 2u - 1$
c_7	$u^{39} - 3u^{38} + \dots - 7u + 1$
c_8	$u^{39} - 9u^{37} + \dots + 4u + 1$
c_9	$u^{39} + 4u^{38} + \dots - 5u^2 + 1$
c_{10}	$u^{39} + 3u^{38} + \dots - 7u - 1$
c_{11}	$u^{39} + u^{38} + \dots + 2u^2 + 1$
c_{12}	$u^{39} - 4u^{38} + \dots + 5u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{39} + 53y^{38} + \dots + 196y - 1$
c_2, c_6	$y^{39} - 28y^{38} + \dots + 34y - 1$
c_3	$y^{39} - 26y^{38} + \dots + 73y - 1$
c_4, c_{11}	$y^{39} + 37y^{38} + \dots - 4y - 1$
c_5	$y^{39} + 6y^{38} + \dots - 365y - 1$
c_7, c_{10}	$y^{39} - 15y^{38} + \dots + 29y - 1$
c_8	$y^{39} - 18y^{38} + \dots - 20y - 1$
c_9, c_{12}	$y^{39} + 12y^{38} + \dots + 10y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.283894 + 0.958496I$ $a = 0.054186 - 0.495379I$ $b = 0.384880 - 0.419224I$	$1.57245 - 1.70184I$	$10.25973 + 2.30840I$
$u = 0.283894 - 0.958496I$ $a = 0.054186 + 0.495379I$ $b = 0.384880 + 0.419224I$	$1.57245 + 1.70184I$	$10.25973 - 2.30840I$
$u = 0.434923 + 0.870016I$ $a = -0.522422 - 0.463390I$ $b = 0.49970 - 1.32999I$	$-1.93068 - 5.33382I$	$0.78916 + 2.89270I$
$u = 0.434923 - 0.870016I$ $a = -0.522422 + 0.463390I$ $b = 0.49970 + 1.32999I$	$-1.93068 + 5.33382I$	$0.78916 - 2.89270I$
$u = -0.062433 + 1.058050I$ $a = 0.159335 + 1.048050I$ $b = -0.131771 - 0.909309I$	$4.87100 + 4.63670I$	$3.29859 - 9.89000I$
$u = -0.062433 - 1.058050I$ $a = 0.159335 - 1.048050I$ $b = -0.131771 + 0.909309I$	$4.87100 - 4.63670I$	$3.29859 + 9.89000I$
$u = 0.929896 + 0.606040I$ $a = 0.156918 + 1.375950I$ $b = -0.75668 + 1.32338I$	$2.05107 - 8.66962I$	$5.28699 + 9.27112I$
$u = 0.929896 - 0.606040I$ $a = 0.156918 - 1.375950I$ $b = -0.75668 - 1.32338I$	$2.05107 + 8.66962I$	$5.28699 - 9.27112I$
$u = 0.012536 + 1.160820I$ $a = -0.599594 - 0.879500I$ $b = -0.264140 + 0.167102I$	$9.62431 + 2.26939I$	$10.68371 - 1.41934I$
$u = 0.012536 - 1.160820I$ $a = -0.599594 + 0.879500I$ $b = -0.264140 - 0.167102I$	$9.62431 - 2.26939I$	$10.68371 + 1.41934I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.544990 + 0.615372I$		
$a = -2.99289 + 0.23618I$	$6.95104 + 3.01739I$	$10.96822 - 5.96059I$
$b = 0.058713 + 0.847053I$		
$u = -0.544990 - 0.615372I$		
$a = -2.99289 - 0.23618I$	$6.95104 - 3.01739I$	$10.96822 + 5.96059I$
$b = 0.058713 - 0.847053I$		
$u = 1.210620 + 0.141301I$		
$a = 0.012905 - 1.198860I$	$-1.59260 - 3.01033I$	$0. + 5.16985I$
$b = 0.741968 - 1.081980I$		
$u = 1.210620 - 0.141301I$		
$a = 0.012905 + 1.198860I$	$-1.59260 + 3.01033I$	$0. - 5.16985I$
$b = 0.741968 + 1.081980I$		
$u = 0.824413 + 0.944196I$		
$a = 0.752165 + 0.666950I$	$-2.58935 - 0.72676I$	0
$b = -0.168796 + 1.257960I$		
$u = 0.824413 - 0.944196I$		
$a = 0.752165 - 0.666950I$	$-2.58935 + 0.72676I$	0
$b = -0.168796 - 1.257960I$		
$u = 1.120210 + 0.606697I$		
$a = 0.782880 + 0.802864I$	$-2.96496 - 0.71358I$	0
$b = -0.163411 + 1.057810I$		
$u = 1.120210 - 0.606697I$		
$a = 0.782880 - 0.802864I$	$-2.96496 + 0.71358I$	0
$b = -0.163411 - 1.057810I$		
$u = 0.973740 + 0.896926I$		
$a = -0.593215 - 1.238330I$	$-3.02190 - 5.18032I$	0
$b = 0.380050 - 1.245890I$		
$u = 0.973740 - 0.896926I$		
$a = -0.593215 + 1.238330I$	$-3.02190 + 5.18032I$	0
$b = 0.380050 + 1.245890I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.063213 + 1.363290I$ $a = 0.003255 + 0.519207I$ $b = -0.305287 - 0.216645I$	$8.01695 - 2.68529I$	0
$u = -0.063213 - 1.363290I$ $a = 0.003255 - 0.519207I$ $b = -0.305287 + 0.216645I$	$8.01695 + 2.68529I$	0
$u = -0.925660 + 1.017680I$ $a = -0.522787 + 1.041120I$ $b = 0.654682 + 1.201800I$	$0.37675 + 9.35178I$	0
$u = -0.925660 - 1.017680I$ $a = -0.522787 - 1.041120I$ $b = 0.654682 - 1.201800I$	$0.37675 - 9.35178I$	0
$u = 0.940176 + 1.020680I$ $a = -0.358433 - 1.078100I$ $b = 0.57898 - 1.44846I$	$-2.25559 - 6.00109I$	0
$u = 0.940176 - 1.020680I$ $a = -0.358433 + 1.078100I$ $b = 0.57898 + 1.44846I$	$-2.25559 + 6.00109I$	0
$u = -1.47048 + 0.13554I$ $a = -0.29604 + 1.61174I$ $b = -0.396898 + 0.850253I$	$7.87263 - 9.76693I$	0
$u = -1.47048 - 0.13554I$ $a = -0.29604 - 1.61174I$ $b = -0.396898 - 0.850253I$	$7.87263 + 9.76693I$	0
$u = -0.163966 + 0.477813I$ $a = -2.64835 - 0.08724I$ $b = 0.549707 + 0.105227I$	$2.58844 - 0.84474I$	$13.5602 - 7.0609I$
$u = -0.163966 - 0.477813I$ $a = -2.64835 + 0.08724I$ $b = 0.549707 - 0.105227I$	$2.58844 + 0.84474I$	$13.5602 + 7.0609I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.099517 + 0.377472I$ $a = 0.558339 - 0.155252I$ $b = 2.13535 - 0.59889I$	$2.33432 + 1.93333I$	$21.7698 - 16.6799I$
$u = -0.099517 - 0.377472I$ $a = 0.558339 + 0.155252I$ $b = 2.13535 + 0.59889I$	$2.33432 - 1.93333I$	$21.7698 + 16.6799I$
$u = 0.201783$ $a = -9.19682$ $b = 0.372070$	3.92034	27.2510
$u = 0.0799594 + 0.0323524I$ $a = 0.12194 + 5.62062I$ $b = -2.14271 + 0.91414I$	$3.27002 + 2.24469I$	$-2.2088 + 20.9290I$
$u = 0.0799594 - 0.0323524I$ $a = 0.12194 - 5.62062I$ $b = -2.14271 - 0.91414I$	$3.27002 - 2.24469I$	$-2.2088 - 20.9290I$
$u = -1.99542 + 0.90444I$ $a = 0.020744 + 1.243490I$ $b = 0.150355 + 0.967883I$	$0.404638 + 0.127158I$	0
$u = -1.99542 - 0.90444I$ $a = 0.020744 - 1.243490I$ $b = 0.150355 - 0.967883I$	$0.404638 - 0.127158I$	0
$u = -1.08558 + 5.41274I$ $a = 0.009478 + 1.081920I$ $b = 0.009274 + 1.106210I$	$1.93970 + 0.33960I$	0
$u = -1.08558 - 5.41274I$ $a = 0.009478 - 1.081920I$ $b = 0.009274 - 1.106210I$	$1.93970 - 0.33960I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{39} - u^{38} + \dots + 28u - 1)(u^{152} - 18u^{151} + \dots - 39u + 1)$
c_2	$(u^{39} - 14u^{37} + \dots - 2u + 1)(u^{152} - 3u^{151} + \dots + 225401u - 8611)$
c_3	$(u^{39} - 13u^{37} + \dots - 13u - 1)(u^{152} - u^{151} + \dots - 15926u - 2857)$
c_4	$(u^{39} - u^{38} + \dots - 2u^2 - 1)(u^{152} + 2u^{151} + \dots - 7903029u + 617167)$
c_5	$(u^{39} + 14u^{38} + \dots - 29u - 1)$ $\cdot (u^{152} + 5u^{151} + \dots + 305455361572u + 24617683931)$
c_6	$(u^{39} - 14u^{37} + \dots - 2u - 1)(u^{152} - 3u^{151} + \dots + 225401u - 8611)$
c_7	$(u^{39} - 3u^{38} + \dots - 7u + 1)(u^{152} + 6u^{151} + \dots - 4623182u + 1967081)$
c_8	$(u^{39} - 9u^{37} + \dots + 4u + 1)$ $\cdot (u^{152} + 3u^{151} + \dots + 438574749u - 20742433)$
c_9	$(u^{39} + 4u^{38} + \dots - 5u^2 + 1)(u^{152} + 9u^{151} + \dots - 369447u + 44911)$
c_{10}	$(u^{39} + 3u^{38} + \dots - 7u - 1)(u^{152} + 6u^{151} + \dots - 4623182u + 1967081)$
c_{11}	$(u^{39} + u^{38} + \dots + 2u^2 + 1)(u^{152} + 2u^{151} + \dots - 7903029u + 617167)$
c_{12}	$(u^{39} - 4u^{38} + \dots + 5u^2 - 1)(u^{152} + 9u^{151} + \dots - 369447u + 44911)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{39} + 53y^{38} + \dots + 196y - 1)(y^{152} + 56y^{151} + \dots + 23y + 1)$
c_2, c_6	$(y^{39} - 28y^{38} + \dots + 34y - 1)$ $\cdot (y^{152} - 101y^{151} + \dots - 16415773991y + 74149321)$
c_3	$(y^{39} - 26y^{38} + \dots + 73y - 1)$ $\cdot (y^{152} - 39y^{151} + \dots - 753263922y + 8162449)$
c_4, c_{11}	$(y^{39} + 37y^{38} + \dots - 4y - 1)$ $\cdot (y^{152} + 124y^{151} + \dots - 8121102240761y + 380895105889)$
c_5	$(y^{39} + 6y^{38} + \dots - 365y - 1)$ $\cdot (y^{152} - 63y^{151} + \dots - 2.20 \times 10^{22}y + 6.06 \times 10^{20})$
c_7, c_{10}	$(y^{39} - 15y^{38} + \dots + 29y - 1)$ $\cdot (y^{152} - 96y^{151} + \dots - 110104889750638y + 3869407660561)$
c_8	$(y^{39} - 18y^{38} + \dots - 20y - 1)$ $\cdot (y^{152} + 29y^{151} + \dots + 22531234880768715y + 430248526759489)$
c_9, c_{12}	$(y^{39} + 12y^{38} + \dots + 10y - 1)$ $\cdot (y^{152} + 79y^{151} + \dots - 258835027171y + 2016997921)$