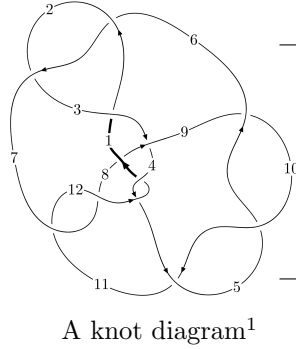
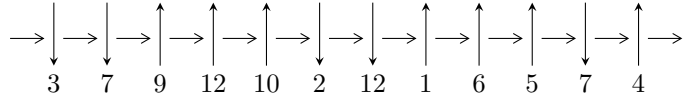


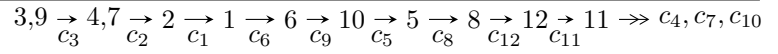
12n₀₅₈₆ (K12n₀₅₈₆)



Linearized knot diagram



Solving Sequence



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 5.84707 \times 10^{197} u^{67} - 2.16837 \times 10^{197} u^{66} + \dots + 3.92981 \times 10^{199} b - 1.61157 \times 10^{200}, \\ - 5.53238 \times 10^{199} u^{67} - 9.61476 \times 10^{198} u^{66} + \dots + 1.84701 \times 10^{201} a + 1.52628 \times 10^{202}, \\ u^{68} + u^{67} + \dots - 106u + 47 \rangle$$

$$I_2^u = \langle -209u^{17} - 81u^{16} + \dots + 310b + 36, -244u^{17} + 1029u^{16} + \dots + 1550a + 3366, \\ u^{18} + 8u^{16} + \dots - u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 86 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.

$$\mathbf{I. } I_1^u = \langle 5.85 \times 10^{197} u^{67} - 2.17 \times 10^{197} u^{66} + \dots + 3.93 \times 10^{199} b - 1.61 \times 10^{200}, -5.53 \times 10^{199} u^{67} - 9.61 \times 10^{198} u^{66} + \dots + 1.85 \times 10^{201} a + 1.53 \times 10^{202}, u^{68} + u^{67} + \dots - 106u + 47 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.0299532u^{67} + 0.00520559u^{66} + \dots + 50.3165u - 8.26352 \\ -0.0148788u^{67} + 0.00551776u^{66} + \dots - 6.75829u + 4.10088 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0362808u^{67} - 0.0242750u^{66} + \dots - 44.0012u + 7.42020 \\ -0.00689572u^{67} - 0.0259460u^{66} + \dots + 10.0543u - 4.06600 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0431766u^{67} - 0.0502210u^{66} + \dots - 33.9469u + 3.35420 \\ -0.00689572u^{67} - 0.0259460u^{66} + \dots + 10.0543u - 4.06600 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0624288u^{67} - 0.0963950u^{66} + \dots + 15.2630u - 9.17122 \\ -0.00205894u^{67} - 0.0212165u^{66} + \dots + 6.50316u - 1.16309 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0381559u^{67} + 0.0535170u^{66} + \dots - 3.05160u + 8.01004 \\ -0.0347763u^{67} - 0.0318760u^{66} + \dots - 6.01436u + 0.490177 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0944015u^{67} - 0.124449u^{66} + \dots - 6.54416u - 8.59604 \\ -0.00498418u^{67} - 0.00962390u^{66} + \dots + 6.80395u - 1.39075 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.103443u^{67} + 0.122227u^{66} + \dots + 44.4358u + 2.42709 \\ -0.0284046u^{67} + 0.00567057u^{66} + \dots - 13.2395u + 4.22413 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0320963u^{67} - 0.0324433u^{66} + \dots - 45.2838u + 7.08912 \\ 0.00120374u^{67} - 0.0159271u^{66} + \dots + 9.86516u - 3.75123 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0569399u^{67} - 0.0655646u^{66} + \dots - 37.3182u - 4.99682 \\ 0.0560391u^{67} + 0.0440243u^{66} + \dots + 22.0532u - 5.21740 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-0.100434u^{67} - 0.0117449u^{66} + \dots - 58.9561u + 13.3433$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{68} + 27u^{67} + \dots + 475766u + 29929$
c_2, c_6	$u^{68} - u^{67} + \dots + 4u + 173$
c_3	$u^{68} - u^{67} + \dots + 106u + 47$
c_4, c_{12}	$u^{68} + 3u^{67} + \dots + 15u + 1$
c_5, c_9, c_{10}	$u^{68} - u^{67} + \dots + 257u + 49$
c_7, c_{11}	$u^{68} + 27u^{66} + \dots + 1735u + 187$
c_8	$u^{68} + 3u^{67} + \dots + 4213u + 2417$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{68} + 25y^{67} + \dots + 3728354922y + 895745041$
c_2, c_6	$y^{68} - 27y^{67} + \dots - 475766y + 29929$
c_3	$y^{68} + 25y^{67} + \dots + 82858y + 2209$
c_4, c_{12}	$y^{68} + 19y^{67} + \dots - 7y + 1$
c_5, c_9, c_{10}	$y^{68} + 55y^{67} + \dots + 9411y + 2401$
c_7, c_{11}	$y^{68} + 54y^{67} + \dots + 2636053y + 34969$
c_8	$y^{68} - 23y^{67} + \dots - 227917187y + 5841889$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.219883 + 1.008080I$ $a = 0.241469 + 0.085640I$ $b = 1.49707 + 0.09193I$	$-6.12896 - 5.89482I$	$-5.75652 + 6.05557I$
$u = -0.219883 - 1.008080I$ $a = 0.241469 - 0.085640I$ $b = 1.49707 - 0.09193I$	$-6.12896 + 5.89482I$	$-5.75652 - 6.05557I$
$u = 0.672615 + 0.850472I$ $a = -0.83876 - 1.21241I$ $b = -1.100020 + 0.411678I$	$-1.73558 + 5.05503I$	0
$u = 0.672615 - 0.850472I$ $a = -0.83876 + 1.21241I$ $b = -1.100020 - 0.411678I$	$-1.73558 - 5.05503I$	0
$u = -0.697134 + 0.586038I$ $a = -0.177708 + 1.159770I$ $b = 0.620030 - 1.084450I$	$2.62024 - 1.78240I$	$2.56416 + 3.76388I$
$u = -0.697134 - 0.586038I$ $a = -0.177708 - 1.159770I$ $b = 0.620030 + 1.084450I$	$2.62024 + 1.78240I$	$2.56416 - 3.76388I$
$u = 0.285172 + 1.071980I$ $a = -0.250112 - 1.333290I$ $b = -0.774404 + 0.244058I$	$-3.84364 + 0.87290I$	0
$u = 0.285172 - 1.071980I$ $a = -0.250112 + 1.333290I$ $b = -0.774404 - 0.244058I$	$-3.84364 - 0.87290I$	0
$u = 0.862398 + 0.778967I$ $a = -0.413310 - 1.002620I$ $b = 0.248323 + 0.742821I$	$-2.25225 + 2.76690I$	0
$u = 0.862398 - 0.778967I$ $a = -0.413310 + 1.002620I$ $b = 0.248323 - 0.742821I$	$-2.25225 - 2.76690I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.825035 + 0.118193I$ $a = -1.265070 - 0.030158I$ $b = 0.727846 - 0.338916I$	$-0.34308 + 2.06616I$	$-0.45806 - 4.18693I$
$u = 0.825035 - 0.118193I$ $a = -1.265070 + 0.030158I$ $b = 0.727846 + 0.338916I$	$-0.34308 - 2.06616I$	$-0.45806 + 4.18693I$
$u = -0.652354 + 0.456929I$ $a = 0.416523 - 0.539818I$ $b = -0.260189 + 0.688100I$	$1.12611 - 0.90841I$	$6.23168 + 2.86305I$
$u = -0.652354 - 0.456929I$ $a = 0.416523 + 0.539818I$ $b = -0.260189 - 0.688100I$	$1.12611 + 0.90841I$	$6.23168 - 2.86305I$
$u = 0.547303 + 1.073360I$ $a = -0.385360 - 1.119290I$ $b = -1.27680 + 0.71611I$	$-2.44164 + 6.42080I$	0
$u = 0.547303 - 1.073360I$ $a = -0.385360 + 1.119290I$ $b = -1.27680 - 0.71611I$	$-2.44164 - 6.42080I$	0
$u = -0.408196 + 1.150410I$ $a = -0.035504 - 0.295582I$ $b = -1.201720 + 0.270622I$	$-6.60076 + 0.55952I$	0
$u = -0.408196 - 1.150410I$ $a = -0.035504 + 0.295582I$ $b = -1.201720 - 0.270622I$	$-6.60076 - 0.55952I$	0
$u = -0.370976 + 1.165800I$ $a = 0.626431 - 0.837333I$ $b = 0.950656 + 0.634963I$	$-1.29490 - 3.01799I$	0
$u = -0.370976 - 1.165800I$ $a = 0.626431 + 0.837333I$ $b = 0.950656 - 0.634963I$	$-1.29490 + 3.01799I$	0

Solutions to $I_{\mathbb{I}}^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.092950 + 0.590264I$ $a = 0.330797 + 0.819225I$ $b = -0.803251 - 0.823757I$	$6.26049 - 3.07517I$	0
$u = 1.092950 - 0.590264I$ $a = 0.330797 - 0.819225I$ $b = -0.803251 + 0.823757I$	$6.26049 + 3.07517I$	0
$u = -1.208810 + 0.326750I$ $a = 1.227870 - 0.540184I$ $b = -0.888058 + 0.281420I$	$-0.63925 - 3.06252I$	0
$u = -1.208810 - 0.326750I$ $a = 1.227870 + 0.540184I$ $b = -0.888058 - 0.281420I$	$-0.63925 + 3.06252I$	0
$u = 0.982954 + 0.811230I$ $a = 0.647738 + 1.181950I$ $b = 0.686495 - 0.648752I$	$2.50618 - 3.05539I$	0
$u = 0.982954 - 0.811230I$ $a = 0.647738 - 1.181950I$ $b = 0.686495 + 0.648752I$	$2.50618 + 3.05539I$	0
$u = 0.058122 + 0.694950I$ $a = 0.497793 + 0.157791I$ $b = 0.277847 + 0.724175I$	$0.07404 - 1.89460I$	$0.12200 + 5.75647I$
$u = 0.058122 - 0.694950I$ $a = 0.497793 - 0.157791I$ $b = 0.277847 - 0.724175I$	$0.07404 + 1.89460I$	$0.12200 - 5.75647I$
$u = -0.250739 + 0.644457I$ $a = 0.359250 - 0.769410I$ $b = -0.216911 + 1.356100I$	$1.036920 + 0.367328I$	$0.04414 + 3.61743I$
$u = -0.250739 - 0.644457I$ $a = 0.359250 + 0.769410I$ $b = -0.216911 - 1.356100I$	$1.036920 - 0.367328I$	$0.04414 - 3.61743I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.272972 + 0.634333I$ $a = -1.06513 - 2.33502I$ $b = -1.243240 + 0.447834I$	$-4.27261 + 6.00177I$	$-7.74759 - 4.23615I$
$u = 0.272972 - 0.634333I$ $a = -1.06513 + 2.33502I$ $b = -1.243240 - 0.447834I$	$-4.27261 - 6.00177I$	$-7.74759 + 4.23615I$
$u = -0.002617 + 0.674324I$ $a = 1.32887 - 0.85280I$ $b = 1.049360 + 0.436998I$	$-1.81410 - 2.04263I$	$0.563270 - 0.027667I$
$u = -0.002617 - 0.674324I$ $a = 1.32887 + 0.85280I$ $b = 1.049360 - 0.436998I$	$-1.81410 + 2.04263I$	$0.563270 + 0.027667I$
$u = 0.953638 + 0.930205I$ $a = -0.061568 + 1.227830I$ $b = 1.134930 - 0.766088I$	$0.91776 + 8.39173I$	0
$u = 0.953638 - 0.930205I$ $a = -0.061568 - 1.227830I$ $b = 1.134930 + 0.766088I$	$0.91776 - 8.39173I$	0
$u = 0.831876 + 1.042200I$ $a = 0.301219 + 0.859411I$ $b = -0.464635 - 1.087020I$	$1.73649 + 9.68261I$	0
$u = 0.831876 - 1.042200I$ $a = 0.301219 - 0.859411I$ $b = -0.464635 + 1.087020I$	$1.73649 - 9.68261I$	0
$u = 0.603553 + 0.282503I$ $a = -0.778437 + 0.160505I$ $b = 0.690703 + 0.550708I$	$-0.35366 - 1.81069I$	$0.78941 + 4.64201I$
$u = 0.603553 - 0.282503I$ $a = -0.778437 - 0.160505I$ $b = 0.690703 - 0.550708I$	$-0.35366 + 1.81069I$	$0.78941 - 4.64201I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.999379 + 0.885451I$ $a = -0.229036 + 1.255670I$ $b = -0.929485 - 0.752340I$	$5.84722 - 2.80393I$	0
$u = -0.999379 - 0.885451I$ $a = -0.229036 - 1.255670I$ $b = -0.929485 + 0.752340I$	$5.84722 + 2.80393I$	0
$u = -0.245626 + 1.337940I$ $a = -0.097385 - 1.229590I$ $b = 0.926966 + 0.720129I$	$-5.22159 - 2.81789I$	0
$u = -0.245626 - 1.337940I$ $a = -0.097385 + 1.229590I$ $b = 0.926966 - 0.720129I$	$-5.22159 + 2.81789I$	0
$u = -0.590766 + 1.231350I$ $a = -1.050480 + 0.810433I$ $b = -0.881595 - 0.567034I$	$0.52888 - 3.31346I$	0
$u = -0.590766 - 1.231350I$ $a = -1.050480 - 0.810433I$ $b = -0.881595 + 0.567034I$	$0.52888 + 3.31346I$	0
$u = -0.942984 + 1.008420I$ $a = -0.394979 + 0.529136I$ $b = 0.635572 - 0.849451I$	$5.46665 - 4.25985I$	0
$u = -0.942984 - 1.008420I$ $a = -0.394979 - 0.529136I$ $b = 0.635572 + 0.849451I$	$5.46665 + 4.25985I$	0
$u = -0.280602 + 0.476354I$ $a = 1.06036 + 1.78747I$ $b = -0.983679 - 0.799011I$	$-8.64170 - 3.14980I$	$7.16331 + 0.66341I$
$u = -0.280602 - 0.476354I$ $a = 1.06036 - 1.78747I$ $b = -0.983679 + 0.799011I$	$-8.64170 + 3.14980I$	$7.16331 - 0.66341I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.307300 + 0.457812I$ $a = -3.78079 + 0.68872I$ $b = -0.869527 - 0.011159I$	$-0.58727 + 4.50387I$	$-4.76464 - 6.42986I$
$u = 0.307300 - 0.457812I$ $a = -3.78079 - 0.68872I$ $b = -0.869527 + 0.011159I$	$-0.58727 - 4.50387I$	$-4.76464 + 6.42986I$
$u = 1.02698 + 1.04640I$ $a = 0.458414 + 0.098682I$ $b = -0.834490 - 0.563961I$	$0.685407 - 1.197810I$	0
$u = 1.02698 - 1.04640I$ $a = 0.458414 - 0.098682I$ $b = -0.834490 + 0.563961I$	$0.685407 + 1.197810I$	0
$u = -0.18944 + 1.46901I$ $a = 0.488604 - 0.506368I$ $b = 0.866555 - 0.189018I$	$-12.42370 + 0.82804I$	0
$u = -0.18944 - 1.46901I$ $a = 0.488604 + 0.506368I$ $b = 0.866555 + 0.189018I$	$-12.42370 - 0.82804I$	0
$u = 0.81297 + 1.24271I$ $a = 0.579912 + 1.211930I$ $b = 1.045700 - 0.697944I$	$4.19402 + 10.02790I$	0
$u = 0.81297 - 1.24271I$ $a = 0.579912 - 1.211930I$ $b = 1.045700 + 0.697944I$	$4.19402 - 10.02790I$	0
$u = -1.11179 + 1.00012I$ $a = 0.06005 - 1.45837I$ $b = 1.138200 + 0.543938I$	$-4.81124 - 7.61038I$	0
$u = -1.11179 - 1.00012I$ $a = 0.06005 + 1.45837I$ $b = 1.138200 - 0.543938I$	$-4.81124 + 7.61038I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.43133 + 0.63387I$ $a = -0.463093 + 0.564401I$ $b = 0.971703 - 0.612440I$	$1.63337 + 7.99332I$	0
$u = -1.43133 - 0.63387I$ $a = -0.463093 - 0.564401I$ $b = 0.971703 + 0.612440I$	$1.63337 - 7.99332I$	0
$u = -0.91838 + 1.30139I$ $a = -0.223847 + 1.246210I$ $b = -1.198190 - 0.719630I$	$-0.5784 - 16.1377I$	0
$u = -0.91838 - 1.30139I$ $a = -0.223847 - 1.246210I$ $b = -1.198190 + 0.719630I$	$-0.5784 + 16.1377I$	0
$u = -0.026899 + 0.339182I$ $a = 0.73493 + 5.25820I$ $b = 0.841091 - 0.362306I$	$-0.643910 + 0.755355I$	$-1.11077 - 3.83651I$
$u = -0.026899 - 0.339182I$ $a = 0.73493 - 5.25820I$ $b = 0.841091 + 0.362306I$	$-0.643910 - 0.755355I$	$-1.11077 + 3.83651I$
$u = -0.08792 + 1.93934I$ $a = -0.317748 - 0.431671I$ $b = -0.882865 + 0.292259I$	$-7.83902 + 1.26546I$	0
$u = -0.08792 - 1.93934I$ $a = -0.317748 + 0.431671I$ $b = -0.882865 - 0.292259I$	$-7.83902 - 1.26546I$	0

$$\text{II. } I_2^u = \langle -209u^{17} - 81u^{16} + \dots + 310b + 36, -244u^{17} + 1029u^{16} + \dots + 1550a + 3366, u^{18} + 8u^{16} + \dots - u + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_3 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_4 &= \begin{pmatrix} 1 \\ -u^2 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 0.157419u^{17} - 0.663871u^{16} + \dots + 0.123871u - 2.17161 \\ 0.674194u^{17} + 0.261290u^{16} + \dots + 4.53871u - 0.116129 \end{pmatrix} \\ a_2 &= \begin{pmatrix} 1.94065u^{17} + 0.110968u^{16} + \dots + 6.10903u - 0.927097 \\ 0.116129u^{17} + 0.674194u^{16} + \dots - 0.974194u + 3.42258 \end{pmatrix} \\ a_1 &= \begin{pmatrix} 2.05677u^{17} + 0.785161u^{16} + \dots + 5.13484u + 2.49548 \\ 0.116129u^{17} + 0.674194u^{16} + \dots - 0.974194u + 3.42258 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -1.25290u^{17} - 1.67935u^{16} + \dots - 0.100645u - 4.29806 \\ 3.42258u^{17} - 0.116129u^{16} + \dots + 14.8161u - 2.44839 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 0.343871u^{17} + 0.465806u^{16} + \dots + 4.75419u + 1.63742 \\ 2.09806u^{17} + 0.447097u^{16} + \dots + 1.23290u + 2.90129 \end{pmatrix} \\ a_5 &= \begin{pmatrix} -0.294839u^{17} + 1.00774u^{16} + \dots - 2.88774u + 1.56323 \\ -1.56452u^{17} - 1.09677u^{16} + \dots - 1.40323u - 2.29032 \end{pmatrix} \\ a_8 &= \begin{pmatrix} -0.363871u^{17} + 0.854194u^{16} + \dots - 6.61419u + 4.64258 \\ -0.552903u^{17} + 0.620645u^{16} + \dots - 4.50065u + 2.40194 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 2.71290u^{17} + 0.319355u^{16} + \dots + 7.38065u - 0.141935 \\ 0.614839u^{17} + 0.872258u^{16} + \dots + 0.147742u + 2.95677 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 2.67935u^{17} - 0.0309677u^{16} + \dots + 11.5510u - 2.25290 \\ 2.00774u^{17} + 1.31161u^{16} + \dots + 3.26839u + 5.29484 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

$$\text{(iii) Cusp Shapes} = \frac{1522}{775}u^{17} + \frac{10921}{1550}u^{16} + \dots - \frac{11304}{775}u + \frac{20859}{1550}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{18} - 8u^{17} + \dots - 15u + 1$
c_2	$u^{18} - 4u^{16} + \dots - u + 1$
c_3	$u^{18} + 8u^{16} + \dots - u + 1$
c_4	$u^{18} - 2u^{17} + \dots + 6u^2 + 1$
c_5	$u^{18} + 11u^{16} + \dots - 8u + 1$
c_6	$u^{18} - 4u^{16} + \dots + u + 1$
c_7	$u^{18} - u^{17} + \dots + 4u + 1$
c_8	$u^{18} - 2u^{16} + \dots + 2u + 1$
c_9, c_{10}	$u^{18} + 11u^{16} + \dots + 8u + 1$
c_{11}	$u^{18} + u^{17} + \dots - 4u + 1$
c_{12}	$u^{18} + 2u^{17} + \dots + 6u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{18} + 8y^{16} + \dots - 23y + 1$
c_2, c_6	$y^{18} - 8y^{17} + \dots - 15y + 1$
c_3	$y^{18} + 16y^{17} + \dots + 13y + 1$
c_4, c_{12}	$y^{18} + 14y^{17} + \dots + 12y + 1$
c_5, c_9, c_{10}	$y^{18} + 22y^{17} + \dots - 22y + 1$
c_7, c_{11}	$y^{18} + 9y^{17} + \dots - 12y + 1$
c_8	$y^{18} - 4y^{17} + \dots + 28y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.622362 + 0.793944I$		
$a = 0.53839 - 1.59688I$	$-3.58496 - 6.70275I$	$-2.03962 + 9.11062I$
$b = 1.283640 + 0.512050I$		
$u = -0.622362 - 0.793944I$		
$a = 0.53839 + 1.59688I$	$-3.58496 + 6.70275I$	$-2.03962 - 9.11062I$
$b = 1.283640 - 0.512050I$		
$u = -0.741033 + 0.625230I$		
$a = 1.03638 + 1.09752I$	$-0.315342 - 0.434766I$	$-0.66037 + 1.44990I$
$b = -0.635878 + 0.205299I$		
$u = -0.741033 - 0.625230I$		
$a = 1.03638 - 1.09752I$	$-0.315342 + 0.434766I$	$-0.66037 - 1.44990I$
$b = -0.635878 - 0.205299I$		
$u = -0.082148 + 1.073030I$		
$a = 0.237276 - 1.230570I$	$-3.38851 - 1.96726I$	$-3.41633 + 3.20272I$
$b = 0.922593 + 0.481777I$		
$u = -0.082148 - 1.073030I$		
$a = 0.237276 + 1.230570I$	$-3.38851 + 1.96726I$	$-3.41633 - 3.20272I$
$b = 0.922593 - 0.481777I$		
$u = 0.389890 + 1.033720I$		
$a = -1.027160 - 0.646201I$	$-2.46815 + 3.75296I$	$-4.41325 - 4.28268I$
$b = -1.082520 + 0.496737I$		
$u = 0.389890 - 1.033720I$		
$a = -1.027160 + 0.646201I$	$-2.46815 - 3.75296I$	$-4.41325 + 4.28268I$
$b = -1.082520 - 0.496737I$		
$u = 0.826732 + 0.098773I$		
$a = -1.67394 - 1.60575I$	$0.25126 + 4.10793I$	$3.42850 - 4.98379I$
$b = 0.566394 + 0.034704I$		
$u = 0.826732 - 0.098773I$		
$a = -1.67394 + 1.60575I$	$0.25126 - 4.10793I$	$3.42850 + 4.98379I$
$b = 0.566394 - 0.034704I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.233966 + 0.695600I$		
$a = 0.41619 - 1.63599I$	$-9.03670 + 3.25723I$	$-12.27411 - 5.61296I$
$b = -1.029600 + 0.818393I$		
$u = 0.233966 - 0.695600I$		
$a = 0.41619 + 1.63599I$	$-9.03670 - 3.25723I$	$-12.27411 + 5.61296I$
$b = -1.029600 - 0.818393I$		
$u = 0.16217 + 1.47822I$		
$a = 0.511966 + 0.256356I$	$-12.22730 - 1.35209I$	$-2.07336 + 8.23143I$
$b = 0.906631 + 0.321231I$		
$u = 0.16217 - 1.47822I$		
$a = 0.511966 - 0.256356I$	$-12.22730 + 1.35209I$	$-2.07336 - 8.23143I$
$b = 0.906631 - 0.321231I$		
$u = -0.001126 + 0.488254I$		
$a = -0.780170 - 0.289026I$	$1.11612 + 1.01323I$	$2.04473 - 6.35072I$
$b = 0.013305 + 1.244950I$		
$u = -0.001126 - 0.488254I$		
$a = -0.780170 + 0.289026I$	$1.11612 - 1.01323I$	$2.04473 + 6.35072I$
$b = 0.013305 - 1.244950I$		
$u = -0.16609 + 1.93105I$		
$a = -0.258913 - 0.545729I$	$-8.17988 + 1.03676I$	$-14.5962 + 2.3548I$
$b = -0.944569 + 0.251147I$		
$u = -0.16609 - 1.93105I$		
$a = -0.258913 + 0.545729I$	$-8.17988 - 1.03676I$	$-14.5962 - 2.3548I$
$b = -0.944569 - 0.251147I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{18} - 8u^{17} + \dots - 15u + 1)(u^{68} + 27u^{67} + \dots + 475766u + 29929)$
c_2	$(u^{18} - 4u^{16} + \dots - u + 1)(u^{68} - u^{67} + \dots + 4u + 173)$
c_3	$(u^{18} + 8u^{16} + \dots - u + 1)(u^{68} - u^{67} + \dots + 106u + 47)$
c_4	$(u^{18} - 2u^{17} + \dots + 6u^2 + 1)(u^{68} + 3u^{67} + \dots + 15u + 1)$
c_5	$(u^{18} + 11u^{16} + \dots - 8u + 1)(u^{68} - u^{67} + \dots + 257u + 49)$
c_6	$(u^{18} - 4u^{16} + \dots + u + 1)(u^{68} - u^{67} + \dots + 4u + 173)$
c_7	$(u^{18} - u^{17} + \dots + 4u + 1)(u^{68} + 27u^{66} + \dots + 1735u + 187)$
c_8	$(u^{18} - 2u^{16} + \dots + 2u + 1)(u^{68} + 3u^{67} + \dots + 4213u + 2417)$
c_9, c_{10}	$(u^{18} + 11u^{16} + \dots + 8u + 1)(u^{68} - u^{67} + \dots + 257u + 49)$
c_{11}	$(u^{18} + u^{17} + \dots - 4u + 1)(u^{68} + 27u^{66} + \dots + 1735u + 187)$
c_{12}	$(u^{18} + 2u^{17} + \dots + 6u^2 + 1)(u^{68} + 3u^{67} + \dots + 15u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{18} + 8y^{16} + \dots - 23y + 1)$ $\cdot (y^{68} + 25y^{67} + \dots + 3728354922y + 895745041)$
c_2, c_6	$(y^{18} - 8y^{17} + \dots - 15y + 1)(y^{68} - 27y^{67} + \dots - 475766y + 29929)$
c_3	$(y^{18} + 16y^{17} + \dots + 13y + 1)(y^{68} + 25y^{67} + \dots + 82858y + 2209)$
c_4, c_{12}	$(y^{18} + 14y^{17} + \dots + 12y + 1)(y^{68} + 19y^{67} + \dots - 7y + 1)$
c_5, c_9, c_{10}	$(y^{18} + 22y^{17} + \dots - 22y + 1)(y^{68} + 55y^{67} + \dots + 9411y + 2401)$
c_7, c_{11}	$(y^{18} + 9y^{17} + \dots - 12y + 1)(y^{68} + 54y^{67} + \dots + 2636053y + 34969)$
c_8	$(y^{18} - 4y^{17} + \dots + 28y + 1)$ $\cdot (y^{68} - 23y^{67} + \dots - 227917187y + 5841889)$