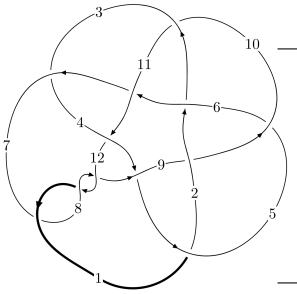
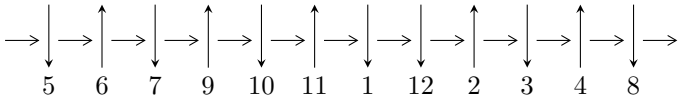
$12a_{1213}$ $(K12a_{1213})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

Ideals for irreducible components[2]of $X_{\mathbf{par}}$

$$I_1^u = \langle -2.38072 \times 10^{36} u^{34} + 2.10788 \times 10^{36} u^{33} + \cdots + 2.31436 \times 10^{37} b - 1.18052 \times 10^{37},$$
$$1.34556 \times 10^{38} u^{34} + 1.19595 \times 10^{38} u^{33} + \cdots + 2.31436 \times 10^{37} a + 9.18534 \times 10^{38},\ u^{35} + u^{34} + \cdots + 8u + 1 \rangle$$
$$I_2^u = \langle -1.95779 \times 10^{17} u^{24} + 2.57330 \times 10^{16} u^{23} + \cdots + 3.09631 \times 10^{18} b + 3.53328 \times 10^{18},$$
$$-1.02595 \times 10^{18} u^{24} + 1.39827 \times 10^{18} u^{23} + \cdots + 1.23853 \times 10^{19} a + 2.15965 \times 10^{19},\ u^{25} - u^{24} + \cdots - 8u -$$
$$I_3^u = \langle 6.80801 \times 10^{870} u^{115} - 1.02067 \times 10^{872} u^{114} + \cdots + 2.89851 \times 10^{874} b + 3.50026 \times 10^{875},$$
$$-3.25101 \times 10^{874} u^{115} + 2.16113 \times 10^{875} u^{114} + \cdots + 1.53436 \times 10^{879} a + 1.14628 \times 10^{881},$$
$$u^{116} - 15u^{115} + \cdots - 417760u + 52936 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 176 representations.

[1]The 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`).

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

I.

$$\boldsymbol{I_1^u = \langle -2.38\times 10^{36}u^{34}+2.11\times 10^{36}u^{33}+\cdots+2.31\times 10^{37}b-1.18\times 10^{37},\ 1.35\times 10^{38}u^{34}+1.20\times 10^{38}u^{33}+\cdots+2.31\times 10^{37}a+9.19\times 10^{38},\ u^{35}+u^{34}+\cdots+8u+1\rangle}$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -5.81398u^{34} - 5.16753u^{33} + \cdots - 72.6444u - 39.6884 \\ 0.102867u^{34} - 0.0910783u^{33} + \cdots - 3.09658u + 0.510083 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -5.70378u^{34} - 4.93508u^{33} + \cdots - 70.1903u - 39.5521 \\ 0.182861u^{34} + 0.0177861u^{33} + \cdots - 2.00831u + 0.632342 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -33.5755u^{34} - 29.3518u^{33} + \cdots - 371.933u - 214.961 \\ 0.712298u^{34} + 0.384179u^{33} + \cdots + 4.97991u + 5.59420 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -5.91684u^{34} - 5.07645u^{33} + \cdots - 69.5478u - 40.1985 \\ 0.102867u^{34} - 0.0910783u^{33} + \cdots - 3.09658u + 0.510083 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -33.5988u^{34} - 29.1991u^{33} + \cdots - 363.943u - 212.176 \\ 0.646444u^{34} + 0.433382u^{33} + \cdots + 6.82336u + 5.81398 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 183.007u^{34} + 155.083u^{33} + \cdots + 1861.33u + 1147.00 \\ -4.39975u^{34} - 3.75957u^{33} + \cdots - 56.6144u - 33.5988 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 24.6736u^{34} + 19.7265u^{33} + \cdots + 217.291u + 153.213 \\ -1.01831u^{34} - 1.24880u^{33} + \cdots - 18.6808u - 5.81082 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -34.4392u^{34} - 29.7788u^{33} + \cdots - 371.080u - 218.093 \\ 0.840389u^{34} + 0.579717u^{33} + \cdots + 7.13622u + 5.91684 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -17.5414u^{34} - 15.2732u^{33} + \cdots - 157.692u - 91.1189 \\ -0.242519u^{34} - 0.107367u^{33} + \cdots + 8.50491u + 3.47843 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -68.4106u^{34} - 55.3484u^{33} + \cdots - 679.743u - 457.303$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$u^{35} - 3u^{34} + \cdots + 13u - 1$
c_2	$u^{35} - 25u^{34} + \cdots + 24576u - 2048$
c_4, c_{11}	$u^{35} + 7u^{34} + \cdots - 3u + 1$
c_5, c_{10}	$u^{35} + 5u^{34} + \cdots - 3u + 1$
c_6, c_9	$u^{35} - u^{34} + \cdots + 8u - 1$
c_7, c_8, c_{12}	$u^{35} + 11u^{34} + \cdots + 384u + 32$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$y^{35} + 11y^{34} + \cdots + 29y - 1$
c_2	$y^{35} + 15y^{34} + \cdots - 90177536y - 4194304$
c_4, c_{11}	$y^{35} - 51y^{34} + \cdots + 35y - 1$
c_5, c_{10}	$y^{35} - 39y^{34} + \cdots + 27y - 1$
c_6, c_9	$y^{35} - y^{34} + \cdots + 28y - 1$
c_7, c_8, c_{12}	$y^{35} + 31y^{34} + \cdots - 7680y - 1024$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.473191+0.955601I$ $a=\ 0.164857-0.773336I$ $b=\ 0.73632-1.23689I$	$-0.87815-2.10009I$	$-6.29124+3.74115I$
$u=-0.473191-0.955601I$ $a=\ 0.164857+0.773336I$ $b=\ 0.73632+1.23689I$	$-0.87815+2.10009I$	$-6.29124-3.74115I$
$u=-0.561860+0.934680I$ $a=\ 0.721974+0.705652I$ $b=\ 0.291621+0.692365I$	$2.74039+5.52452I$	$-2.61115-4.68081I$
$u=-0.561860-0.934680I$ $a=\ 0.721974-0.705652I$ $b=\ 0.291621-0.692365I$	$2.74039-5.52452I$	$-2.61115+4.68081I$
$u=\ 0.728850+0.833231I$ $a=\ 0.690527-0.506887I$ $b=\ 0.058923-0.690806I$	$-2.68642-1.48594I$	$-5.76171+5.39125I$
$u=\ 0.728850-0.833231I$ $a=\ 0.690527+0.506887I$ $b=\ 0.058923+0.690806I$	$-2.68642+1.48594I$	$-5.76171-5.39125I$
$u=\ 0.486606+1.044960I$ $a=\ 0.195291-0.498321I$ $b=\ 0.31826-1.73957I$	$-0.68127+1.41250I$	$-3.06396-1.29126I$
$u=\ 0.486606-1.044960I$ $a=\ 0.195291+0.498321I$ $b=\ 0.31826+1.73957I$	$-0.68127-1.41250I$	$-3.06396+1.29126I$
$u=-0.798627+0.123489I$ $a=-0.533379-0.839803I$ $b=\ 1.53890-0.84849I$	$10.09970-2.57123I$	$7.26146+7.35567I$
$u=-0.798627-0.123489I$ $a=-0.533379+0.839803I$ $b=\ 1.53890+0.84849I$	$10.09970+2.57123I$	$7.26146-7.35567I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.300719+0.744013I$ $a=\ 0.189534+0.400172I$ $b=\ 0.03329+2.04106I$	$7.92447+1.85760I$	$-9.7550-10.3352I$
$u=-0.300719-0.744013I$ $a=\ 0.189534-0.400172I$ $b=\ 0.03329-2.04106I$	$7.92447-1.85760I$	$-9.7550+10.3352I$
$u=-0.663483+1.024170I$ $a=\ 0.189870+0.547409I$ $b=\ 0.43442+1.63061I$	$-1.65342-7.27417I$	$-5.53901+7.92193I$
$u=-0.663483-1.024170I$ $a=\ 0.189870-0.547409I$ $b=\ 0.43442-1.63061I$	$-1.65342+7.27417I$	$-5.53901-7.92193I$
$u=-1.023220+0.684265I$ $a=\ 0.615312+0.295804I$ $b=-0.320104+0.634624I$	$-0.17224-3.30186I$	$4.00752-4.42363I$
$u=-1.023220-0.684265I$ $a=\ 0.615312-0.295804I$ $b=-0.320104-0.634624I$	$-0.17224+3.30186I$	$4.00752+4.42363I$
$u=\ 0.748659+0.978142I$ $a=\ 0.165026-0.583693I$ $b=\ 0.55147-1.58642I$	$4.79967+11.80520I$	$-2.00000-8.67473I$
$u=\ 0.748659-0.978142I$ $a=\ 0.165026+0.583693I$ $b=\ 0.55147+1.58642I$	$4.79967-11.80520I$	$-2.00000+8.67473I$
$u=\ 0.894095+0.973220I$ $a=-0.088879+0.809478I$ $b=\ 1.13402+1.22065I$	$0.21423+7.00365I$	$0.-4.77334I$
$u=\ 0.894095-0.973220I$ $a=-0.088879-0.809478I$ $b=\ 1.13402-1.22065I$	$0.21423-7.00365I$	$0.+4.77334I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.599988 + 0.271035I$ $a = -0.65464 + 1.47497I$ $b = 1.251390 + 0.566406I$	$3.12898 + 2.04422I$	$4.59072 - 3.04484I$
$u = 0.599988 - 0.271035I$ $a = -0.65464 - 1.47497I$ $b = 1.251390 - 0.566406I$	$3.12898 - 2.04422I$	$4.59072 + 3.04484I$
$u = -0.132382 + 0.519991I$ $a = 0.881561 - 0.313861I$ $b = -0.006740 - 0.358428I$	$-0.184960 - 1.127700I$	$-2.22637 + 6.73061I$
$u = -0.132382 - 0.519991I$ $a = 0.881561 + 0.313861I$ $b = -0.006740 + 0.358428I$	$-0.184960 + 1.127700I$	$-2.22637 - 6.73061I$
$u = -1.24107 + 0.80628I$ $a = -0.224566 - 0.903591I$ $b = 1.25904 - 1.04232I$	$10.26990 - 7.64955I$	0
$u = -1.24107 - 0.80628I$ $a = -0.224566 + 0.903591I$ $b = 1.25904 + 1.04232I$	$10.26990 + 7.64955I$	0
$u = 0.014885 + 0.497734I$ $a = 3.54266 - 2.08972I$ $b = 0.790590 - 0.123525I$	$4.73898 + 2.59865I$	$-10.3277 - 11.9450I$
$u = 0.014885 - 0.497734I$ $a = 3.54266 + 2.08972I$ $b = 0.790590 + 0.123525I$	$4.73898 - 2.59865I$	$-10.3277 + 11.9450I$
$u = 1.27290 + 0.91763I$ $a = -0.284094 + 0.896949I$ $b = 1.32093 + 1.01324I$	$1.91254 + 10.46930I$	0
$u = 1.27290 - 0.91763I$ $a = -0.284094 - 0.896949I$ $b = 1.32093 - 1.01324I$	$1.91254 - 10.46930I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.30681+0.93603I$ $a=-0.298108-0.936803I$ $b=\ \ 1.30845-0.96931I$	$0.8251-15.9095I$	0
$u=-1.30681-0.93603I$ $a=-0.298108+0.936803I$ $b=\ \ 1.30845+0.96931I$	$0.8251+15.9095I$	0
$u=\ \ 1.33364+0.94709I$ $a=-0.286932+0.961649I$ $b=\ \ 1.28491+0.95487I$	$7.0349+20.2665I$	0
$u=\ \ 1.33364-0.94709I$ $a=-0.286932-0.961649I$ $b=\ \ 1.28491-0.95487I$	$7.0349-20.2665I$	0
$u=-0.156518$ $a=-34.9720$ $b=\ \ 1.02859$	0.541372	-424.140

II.

$\boldsymbol{I_2^u = \langle -1.96\times10^{17}u^{24}+2.57\times10^{16}u^{23}+\cdots+3.10\times10^{18}b+3.53\times10^{18},\ -1.03\times10^{18}u^{24}+1.40\times10^{18}u^{23}+\cdots+1.24\times10^{19}a+2.16\times10^{19},\ u^{25}-u^{24}+\cdots-8u-8\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_3 = \begin{pmatrix}0.0828360u^{24} - 0.112898u^{23} + \cdots - 1.89081u - 1.74372\\0.0632297u^{24} - 0.00831085u^{23} + \cdots - 1.12338u - 1.14113\end{pmatrix}$$

$$a_7 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$

$$a_4 = \begin{pmatrix}0.0237886u^{24} - 0.0967624u^{23} + \cdots - 1.18962u - 0.362102\\0.0366311u^{24} - 0.0217545u^{23} + \cdots - 0.307708u - 0.797832\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}0.0181137u^{24} - 0.00463381u^{23} + \cdots - 1.87039u + 0.341855\\0.0143600u^{24} - 0.0438065u^{23} + \cdots + 1.45977u - 0.114605\end{pmatrix}$$

$$a_2 = \begin{pmatrix}0.0196063u^{24} - 0.104587u^{23} + \cdots - 0.767427u - 0.602598\\0.0632297u^{24} - 0.00831085u^{23} + \cdots - 1.12338u - 1.14113\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0.111772u^{24} - 0.130147u^{23} + \cdots - 0.329660u - 0.474602\\0.0300620u^{24} - 0.0258797u^{23} + \cdots + 1.08104u - 0.662688\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0.0470114u^{24} - 0.123522u^{23} + \cdots - 3.09053u + 0.235072\\0.0183753u^{24} - 0.0403395u^{23} + \cdots - 0.419572u - 0.894174\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.0242955u^{24} + 0.00502972u^{23} + \cdots + 2.56668u - 1.33845\\0.0211853u^{24} + 0.0698665u^{23} + \cdots - 0.0456261u + 0.124634\end{pmatrix}$$

$$a_9 = \begin{pmatrix}0.0267908u^{24} - 0.0521712u^{23} + \cdots - 0.775408u - 0.317751\\0.0849809u^{24} - 0.0779759u^{23} + \cdots + 0.445748u - 0.156850\end{pmatrix}$$

$$a_8 = \begin{pmatrix}0.141789u^{24} - 0.189859u^{23} + \cdots - 1.17851u - 1.06959\\-0.0355395u^{24} + 0.0698178u^{23} + \cdots + 0.631153u - 0.896134\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{2452215208224550567}{12385251064844942024}u^{24} - \frac{846206872359813633}{12385251064844942024}u^{23} + \cdots - \frac{8471824635934717355}{3096312766211235506}u - \frac{6668781122666694554}{1548156383105617753}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$u^{25} - 3u^{24} + \cdots - 40u + 56$
c_2	$u^{25} - 8u^{24} + \cdots - 3u - 1$
c_4, c_{11}	$8(8u^{25} + 8u^{24} + \cdots + 5u^2 + 1)$
c_5, c_{10}	$8(8u^{25} - 8u^{24} + \cdots + 11u^2 - 1)$
c_6, c_9	$u^{25} - u^{24} + \cdots - 8u - 8$
c_7, c_8	$u^{25} + 2u^{24} + \cdots - 2u + 1$
c_{12}	$u^{25} - 2u^{24} + \cdots - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$y^{25} - 3y^{24} + \cdots + 19072y - 3136$
c_2	$y^{25} + 10y^{24} + \cdots + 37y - 1$
c_4, c_{11}	$64(64y^{25} - 448y^{24} + \cdots - 10y - 1)$
c_5, c_{10}	$64(64y^{25} - 704y^{24} + \cdots + 22y - 1)$
c_6, c_9	$y^{25} - 7y^{24} + \cdots + 192y - 64$
c_7, c_8, c_{12}	$y^{25} + 26y^{24} + \cdots + 46y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.317550 + 0.877564I$ $a = -0.229611 + 0.699890I$ $b = -0.576807 + 1.289960I$	$-2.07306 + 0.81237I$	$-8.44018 - 1.80632I$
$u = 0.317550 - 0.877564I$ $a = -0.229611 - 0.699890I$ $b = -0.576807 - 1.289960I$	$-2.07306 - 0.81237I$	$-8.44018 + 1.80632I$
$u = 0.374639 + 0.814667I$ $a = -0.133763 - 0.490884I$ $b = -0.48326 - 1.89633I$	$8.08619 - 1.60054I$	$4.91227 - 11.32939I$
$u = 0.374639 - 0.814667I$ $a = -0.133763 + 0.490884I$ $b = -0.48326 + 1.89633I$	$8.08619 + 1.60054I$	$4.91227 + 11.32939I$
$u = -1.10397$ $a = -0.450023$ $b = 1.22211$	4.61475	8.27900
$u = 1.081950 + 0.250410I$ $a = -0.465508 - 0.085599I$ $b = 1.077930 - 0.382096I$	$9.67308 - 1.37757I$	$5.79906 + 0.19770I$
$u = 1.081950 - 0.250410I$ $a = -0.465508 + 0.085599I$ $b = 1.077930 + 0.382096I$	$9.67308 + 1.37757I$	$5.79906 - 0.19770I$
$u = -1.010210 + 0.558270I$ $a = -0.685743 - 0.374548I$ $b = 0.123193 - 0.613480I$	$-0.50342 - 3.65382I$	$-7.55217 + 7.75024I$
$u = -1.010210 - 0.558270I$ $a = -0.685743 + 0.374548I$ $b = 0.123193 + 0.613480I$	$-0.50342 + 3.65382I$	$-7.55217 - 7.75024I$
$u = -0.888892 + 0.794377I$ $a = 0.20872 + 1.44121I$ $b = -1.098420 + 0.679608I$	$1.26033 - 8.21911I$	$0.36152 + 8.38035I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.888892-0.794377I$ $a=\ \ 0.20872-1.44121I$ $b=-1.098420-0.679608I$	$1.26033+8.21911I$	$0.36152-8.38035I$
$u=-0.550547+1.107680I$ $a=-0.133124+0.611398I$ $b=-0.65999+1.56156I$	$0.01650-2.22543I$	$4.06322+5.84619I$
$u=-0.550547-1.107680I$ $a=-0.133124-0.611398I$ $b=-0.65999-1.56156I$	$0.01650+2.22543I$	$4.06322-5.84619I$
$u=-0.768453+0.973451I$ $a=-0.374681+0.879750I$ $b=-0.590219+0.962163I$	$6.96474-11.65060I$	$2.09612+9.34091I$
$u=-0.768453-0.973451I$ $a=-0.374681-0.879750I$ $b=-0.590219-0.962163I$	$6.96474+11.65060I$	$2.09612-9.34091I$
$u=\ \ 0.770593+1.061120I$ $a=-0.135159-0.791525I$ $b=-0.79038-1.22759I$	$0.04224+8.07532I$	$-0.32524-11.69521I$
$u=\ \ 0.770593-1.061120I$ $a=-0.135159+0.791525I$ $b=-0.79038+1.22759I$	$0.04224-8.07532I$	$-0.32524+11.69521I$
$u=\ \ 0.671501$ $a=-1.58450$ $b=-0.368886$	-3.74850	-10.8400
$u=\ \ 0.942808+0.936636I$ $a=\ \ 0.128385-1.073180I$ $b=-1.10990-0.91866I$	$-0.63864+8.33929I$	$-1.35664-7.88306I$
$u=\ \ 0.942808-0.936636I$ $a=\ \ 0.128385+1.073180I$ $b=-1.10990+0.91866I$	$-0.63864-8.33929I$	$-1.35664+7.88306I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.370104+0.321579I$ $a=-1.00930-1.83683I$ $b=-0.770228-0.418162I$	$-0.07970-3.22269I$	$-5.25315+3.28753I$
$u=-0.370104-0.321579I$ $a=-1.00930+1.83683I$ $b=-0.770228+0.418162I$	$-0.07970+3.22269I$	$-5.25315-3.28753I$
$u=-1.52760$ $a=-0.771960$ $b=\ \ 0.295403$	0.0461358	-0.00449090
$u=\ \ 1.58070+0.12470I$ $a=-0.766976-0.004982I$ $b=\ \ 0.303767-0.008468I$	$4.75943-0.77091I$	$-0.021983+0.140884I$
$u=\ \ 1.58070-0.12470I$ $a=-0.766976+0.004982I$ $b=\ \ 0.303767+0.008468I$	$4.75943+0.77091I$	$-0.021983-0.140884I$

III. $I_3^u = \langle 6.81 \times 10^{870} u^{115} - 1.02 \times 10^{872} u^{114} + \cdots + 2.90 \times 10^{874} b + 3.50 \times 10^{875},\ -3.25 \times 10^{874} u^{115} + 2.16 \times 10^{875} u^{114} + \cdots + 1.53 \times 10^{879} a + 1.15 \times 10^{881},\ u^{116} - 15u^{115} + \cdots - 417760u + 52936 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0000211881u^{115} - 0.000140850u^{114} + \cdots + 332.880u - 74.7079 \\ -0.000234880u^{115} + 0.00352137u^{114} + \cdots + 149.396u - 12.0761 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.000235461u^{115} - 0.00342005u^{114} + \cdots + 110.674u - 53.2636 \\ -0.000258566u^{115} + 0.00389995u^{114} + \cdots + 187.940u - 15.5229 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 3.09589 \times 10^{-6} u^{115} - 0.000142993u^{114} + \cdots - 40.8529u - 28.0315 \\ 0.000275424u^{115} - 0.00411469u^{114} + \cdots - 170.695u + 9.50168 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.000256068u^{115} - 0.00366222u^{114} + \cdots + 183.484u - 62.6318 \\ -0.000234880u^{115} + 0.00352137u^{114} + \cdots + 149.396u - 12.0761 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0000533118u^{115} - 0.00108371u^{114} + \cdots - 344.514u - 5.40386 \\ -0.0000839813u^{115} + 0.00125485u^{114} + \cdots + 31.0149u - 7.02085 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.000186726u^{115} - 0.00263160u^{114} + \cdots + 357.144u - 102.550 \\ 0.000175190u^{115} - 0.00262080u^{114} + \cdots - 52.7290u + 4.48737 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0000329485u^{115} - 0.000439958u^{114} + \cdots + 99.4761u - 74.2454 \\ -0.000110444u^{115} + 0.00159254u^{114} + \cdots + 30.4766u - 5.18938 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 8.31143 \times 10^{-6} u^{115} + 0.0000178873u^{114} + \cdots + 299.956u - 42.3593 \\ 0.0000764582u^{115} - 0.00146462u^{114} + \cdots - 559.459u + 59.6749 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.000299255u^{115} + 0.00442911u^{114} + \cdots - 138.230u + 81.9995 \\ 5.30386 \times 10^{-6} u^{115} - 0.000162142u^{114} + \cdots - 178.360u + 16.8795 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.00136918u^{115} + 0.0205831u^{114} + \cdots + 475.643u - 0.629277$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$u^{116} + 5u^{115} + \cdots - 293824u - 18872$
c_2	$(u^{58} + 14u^{57} + \cdots + 2u + 1)^2$
c_4, c_{11}	$8(8u^{116} + 104u^{115} + \cdots - 1.07834 \times 10^8 u + 3.68679 \times 10^7)$
c_5, c_{10}	$8(8u^{116} + 104u^{115} + \cdots + 65126u - 4735)$
c_6, c_9	$u^{116} + 15u^{115} + \cdots + 417760u + 52936$
c_7, c_8, c_{12}	$(u^{58} - 6u^{57} + \cdots - 24u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$y^{116} - 93y^{115} + \cdots - 74449976896y + 356152384$
c_2	$(y^{58} - 14y^{57} + \cdots - 132y + 1)^2$
c_4, c_{11}	$64(64y^{116} - 6720y^{115} + \cdots - 1.67721 \times 10^{17}y + 1.35924 \times 10^{15})$
c_5, c_{10}	$64(64y^{116} - 5184y^{115} + \cdots - 3.55007 \times 10^{9}y + 2.24202 \times 10^{7})$
c_6, c_9	$y^{116} - 105y^{115} + \cdots - 367121525120y + 2802220096$
c_7, c_8, c_{12}	$(y^{58} + 58y^{57} + \cdots - 272y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.01158$ $a=-8.79748$ $b=\ \ 0.0996704$	0.00210462	0
$u=\ \ 0.979940+0.270868I$ $a=\ \ 1.27783+0.75838I$ $b=-0.673521-0.205430I$	$10.39060+0.33751I$	0
$u=\ \ 0.979940-0.270868I$ $a=\ \ 1.27783-0.75838I$ $b=-0.673521+0.205430I$	$10.39060-0.33751I$	0
$u=\ \ 0.260251+0.936468I$ $a=\ \ 0.995159+0.468241I$ $b=\ \ 0.540330-0.147934I$	$0.160870-0.671910I$	0
$u=\ \ 0.260251-0.936468I$ $a=\ \ 0.995159-0.468241I$ $b=\ \ 0.540330+0.147934I$	$0.160870+0.671910I$	0
$u=\ \ 0.899381+0.324843I$ $a=\ \ 0.02723+1.66548I$ $b=\ \ 0.327313+0.897043I$	$6.88898-0.12974I$	0
$u=\ \ 0.899381-0.324843I$ $a=\ \ 0.02723-1.66548I$ $b=\ \ 0.327313-0.897043I$	$6.88898+0.12974I$	0
$u=\ \ 0.500073+0.812320I$ $a=\ \ 1.002650+0.655796I$ $b=\ \ 0.677148+0.214687I$	$4.86393+2.30422I$	0
$u=\ \ 0.500073-0.812320I$ $a=\ \ 1.002650-0.655796I$ $b=\ \ 0.677148-0.214687I$	$4.86393-2.30422I$	0
$u=-0.692472+0.649475I$ $a=-0.818612+0.006859I$ $b=-0.767777-0.502166I$	$1.15556+5.12365I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.692472-0.649475I$ $a=-0.818612-0.006859I$ $b=-0.767777+0.502166I$	$1.15556-5.12365I$	0
$u=-0.941152+0.094794I$ $a=-0.138651-0.826278I$ $b=1.013770-0.116777I$	$3.73399-1.62934I$	0
$u=-0.941152-0.094794I$ $a=-0.138651+0.826278I$ $b=1.013770+0.116777I$	$3.73399+1.62934I$	0
$u=0.234879+0.906360I$ $a=0.130221+1.095070I$ $b=-0.751053+0.970955I$	$1.50707+3.95116I$	0
$u=0.234879-0.906360I$ $a=0.130221-1.095070I$ $b=-0.751053-0.970955I$	$1.50707-3.95116I$	0
$u=-0.817032+0.432974I$ $a=-0.409960-0.596017I$ $b=-0.751053-0.970955I$	$1.50707-3.95116I$	0
$u=-0.817032-0.432974I$ $a=-0.409960+0.596017I$ $b=-0.751053+0.970955I$	$1.50707+3.95116I$	0
$u=-0.905748+0.165780I$ $a=0.90226-1.09537I$ $b=-0.704558+0.226547I$	$3.59558-3.21071I$	0
$u=-0.905748-0.165780I$ $a=0.90226+1.09537I$ $b=-0.704558-0.226547I$	$3.59558+3.21071I$	0
$u=-0.873393+0.286666I$ $a=0.212283+0.253939I$ $b=1.53643+0.52266I$	$7.01799-4.89766I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.873393-0.286666I$ $a=\ 0.212283-0.253939I$ $b=\ 1.53643-0.52266I$	$7.01799+4.89766I$	0
$u=\ 0.713535+0.577768I$ $a=\ 0.63911-1.49896I$ $b=-0.664418-0.629619I$	$-3.06039+2.03547I$	0
$u=\ 0.713535-0.577768I$ $a=\ 0.63911+1.49896I$ $b=-0.664418+0.629619I$	$-3.06039-2.03547I$	0
$u=-0.763410+0.771723I$ $a=\ 0.028077-1.034150I$ $b=\ 0.559985-1.250220I$	$-0.90262-2.33430I$	0
$u=-0.763410-0.771723I$ $a=\ 0.028077+1.034150I$ $b=\ 0.559985+1.250220I$	$-0.90262+2.33430I$	0
$u=\ 1.078240+0.136226I$ $a=\ 2.71578-1.12355I$ $b=-0.366627-0.170388I$	$5.01112-0.52164I$	0
$u=\ 1.078240-0.136226I$ $a=\ 2.71578+1.12355I$ $b=-0.366627+0.170388I$	$5.01112+0.52164I$	0
$u=\ 0.493381+0.764958I$ $a=-0.15233-1.51824I$ $b=-1.115670-0.750715I$	$1.01755+6.41344I$	0
$u=\ 0.493381-0.764958I$ $a=-0.15233+1.51824I$ $b=-1.115670+0.750715I$	$1.01755-6.41344I$	0
$u=\ 0.637789+0.647820I$ $a=-0.356755+0.693103I$ $b=-0.713517+0.945516I$	$-3.36011+2.04094I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.637789 - 0.647820I$ $a = -0.356755 - 0.693103I$ $b = -0.713517 - 0.945516I$	$-3.36011 - 2.04094I$	0
$u = -0.898737 + 0.638239I$ $a = 0.62169 + 1.30815I$ $b = -0.767777 + 0.502166I$	$1.15556 - 5.12365I$	0
$u = -0.898737 - 0.638239I$ $a = 0.62169 - 1.30815I$ $b = -0.767777 - 0.502166I$	$1.15556 + 5.12365I$	0
$u = 1.135380 + 0.122044I$ $a = 0.086119 + 0.641099I$ $b = 1.026360 + 0.255290I$	$9.75231 + 4.08244I$	0
$u = 1.135380 - 0.122044I$ $a = 0.086119 - 0.641099I$ $b = 1.026360 - 0.255290I$	$9.75231 - 4.08244I$	0
$u = -0.746972 + 0.416669I$ $a = -1.49126 + 0.35281I$ $b = 1.026360 - 0.255290I$	$9.75231 - 4.08244I$	0
$u = -0.746972 - 0.416669I$ $a = -1.49126 - 0.35281I$ $b = 1.026360 + 0.255290I$	$9.75231 + 4.08244I$	0
$u = -0.843208 + 0.085931I$ $a = 0.57492 + 1.43425I$ $b = -1.15971 + 0.96631I$	$9.5516 - 10.5652I$	0
$u = -0.843208 - 0.085931I$ $a = 0.57492 - 1.43425I$ $b = -1.15971 - 0.96631I$	$9.5516 + 10.5652I$	0
$u = 0.823622 + 0.011430I$ $a = -0.53246 - 2.65982I$ $b = 0.432044 - 0.349969I$	$4.00496 + 0.11590I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.823622 - 0.011430I$ $a = -0.53246 + 2.65982I$ $b = 0.432044 + 0.349969I$	$4.00496 - 0.11590I$	0
$u = 0.788196 + 0.199185I$ $a = 1.06705 + 1.58260I$ $b = -0.733347 - 0.206691I$	$3.00880 + 7.71935I$	0
$u = 0.788196 - 0.199185I$ $a = 1.06705 - 1.58260I$ $b = -0.733347 + 0.206691I$	$3.00880 - 7.71935I$	0
$u = -0.709071 + 0.962261I$ $a = -0.310202 - 0.555623I$ $b = -0.690086 - 0.845429I$	$-0.358848 - 0.399308I$	0
$u = -0.709071 - 0.962261I$ $a = -0.310202 + 0.555623I$ $b = -0.690086 + 0.845429I$	$-0.358848 + 0.399308I$	0
$u = -0.751367 + 0.270441I$ $a = 1.42199 - 1.70934I$ $b = -0.736192 + 0.183930I$	$9.1239 - 11.3929I$	0
$u = -0.751367 - 0.270441I$ $a = 1.42199 + 1.70934I$ $b = -0.736192 - 0.183930I$	$9.1239 + 11.3929I$	0
$u = 0.759086 + 0.167333I$ $a = -1.038420 - 0.884858I$ $b = 1.013770 + 0.116777I$	$3.73399 + 1.62934I$	$0. - 5.11449I$
$u = 0.759086 - 0.167333I$ $a = -1.038420 + 0.884858I$ $b = 1.013770 - 0.116777I$	$3.73399 - 1.62934I$	$0. + 5.11449I$
$u = -0.153958 + 0.761524I$ $a = -0.055312 - 1.198320I$ $b = -0.713517 - 0.945516I$	$-3.36011 - 2.04094I$	$-8.79412 + 5.85740I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.153958-0.761524I$ $a=-0.055312+1.198320I$ $b=-0.713517+0.945516I$	$-3.36011+2.04094I$	$-8.79412-5.85740I$
$u=\ \ 0.786939+0.941766I$ $a=-0.448228+0.268724I$ $b=-0.664418+0.629619I$	$-3.06039-2.03547I$	0
$u=\ \ 0.786939-0.941766I$ $a=-0.448228-0.268724I$ $b=-0.664418-0.629619I$	$-3.06039+2.03547I$	0
$u=\ \ 0.754748$ $a=\ \ 0.222173$ $b=\ \ 1.85662$	2.24749	9.28120
$u=-0.757678+0.996838I$ $a=-0.016211+1.208650I$ $b=-1.088980+0.799671I$	$-2.18513-8.49069I$	0
$u=-0.757678-0.996838I$ $a=-0.016211-1.208650I$ $b=-1.088980-0.799671I$	$-2.18513+8.49069I$	0
$u=-0.256825+0.697678I$ $a=\ \ 0.20777+1.57054I$ $b=-0.690086+0.845429I$	$-0.358848+0.399308I$	$-2.00000+0.I$
$u=-0.256825-0.697678I$ $a=\ \ 0.20777-1.57054I$ $b=-0.690086-0.845429I$	$-0.358848-0.399308I$	$-2.00000+0.I$
$u=\ \ 1.022720+0.775036I$ $a=-0.242532+1.097970I$ $b=\ \ 0.677280+1.077370I$	$-1.81586+7.53048I$	0
$u=\ \ 1.022720-0.775036I$ $a=-0.242532-1.097970I$ $b=\ \ 0.677280-1.077370I$	$-1.81586-7.53048I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.098930+0.694343I$ $a=\ \ 0.325265+1.289590I$ $b=-1.076520+0.823273I$	$2.54061-10.54650I$	0
$u=-1.098930-0.694343I$ $a=\ \ 0.325265-1.289590I$ $b=-1.076520-0.823273I$	$2.54061+10.54650I$	0
$u=\ \ 1.054200+0.808278I$ $a=\ \ 0.283751-1.221210I$ $b=-1.088980-0.799671I$	$-2.18513+8.49069I$	0
$u=\ \ 1.054200-0.808278I$ $a=\ \ 0.283751+1.221210I$ $b=-1.088980+0.799671I$	$-2.18513-8.49069I$	0
$u=-1.115170+0.723638I$ $a=-0.339399-1.173380I$ $b=\ \ 0.681559-0.993043I$	$4.42249-11.60810I$	0
$u=-1.115170-0.723638I$ $a=-0.339399+1.173380I$ $b=\ \ 0.681559+0.993043I$	$4.42249+11.60810I$	0
$u=-0.578647+0.272996I$ $a=\ \ 0.57081-2.37898I$ $b=\ \ 0.540330-0.147934I$	$0.160870-0.671910I$	$-2.15622+10.18820I$
$u=-0.578647-0.272996I$ $a=\ \ 0.57081+2.37898I$ $b=\ \ 0.540330+0.147934I$	$0.160870+0.671910I$	$-2.15622-10.18820I$
$u=\ \ 0.625939+0.130720I$ $a=\ \ 0.69693-1.62006I$ $b=-1.27363-0.94541I$	$2.36016+7.44357I$	$2.72331-8.71572I$
$u=\ \ 0.625939-0.130720I$ $a=\ \ 0.69693+1.62006I$ $b=-1.27363+0.94541I$	$2.36016-7.44357I$	$2.72331+8.71572I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.533442+1.266060I$ $a=-0.080396-0.396039I$ $b=-0.441070-0.879956I$	$-0.767799-0.707140I$	0
$u=-0.533442-1.266060I$ $a=-0.080396+0.396039I$ $b=-0.441070+0.879956I$	$-0.767799+0.707140I$	0
$u=\ \ 0.503153+0.320623I$ $a=\ \ 0.813514+1.061800I$ $b=-1.04228+1.32124I$	$8.59840+2.41577I$	$10.35447-1.07003I$
$u=\ \ 0.503153-0.320623I$ $a=\ \ 0.813514-1.061800I$ $b=-1.04228-1.32124I$	$8.59840-2.41577I$	$10.35447+1.07003I$
$u=-1.12741+0.87171I$ $a=\ \ 0.366742+1.095350I$ $b=-1.115670+0.750715I$	$1.01755-6.41344I$	0
$u=-1.12741-0.87171I$ $a=\ \ 0.366742-1.095350I$ $b=-1.115670-0.750715I$	$1.01755+6.41344I$	0
$u=\ \ 0.85018+1.18672I$ $a=-0.035511-1.062400I$ $b=-1.076520-0.823273I$	$2.54061+10.54650I$	0
$u=\ \ 0.85018-1.18672I$ $a=-0.035511+1.062400I$ $b=-1.076520+0.823273I$	$2.54061-10.54650I$	0
$u=-1.31779+0.75264I$ $a=\ \ 0.154248+0.681986I$ $b=-0.704558+0.226547I$	$3.59558-3.21071I$	0
$u=-1.31779-0.75264I$ $a=\ \ 0.154248-0.681986I$ $b=-0.704558-0.226547I$	$3.59558+3.21071I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.07393 + 1.52551I$ $a = 0.188483 - 0.440292I$ $b = 0.559985 - 1.250220I$	$-0.90262 - 2.33430I$	0
$u = 0.07393 - 1.52551I$ $a = 0.188483 + 0.440292I$ $b = 0.559985 + 1.250220I$	$-0.90262 + 2.33430I$	0
$u = 1.24493 + 0.88674I$ $a = 0.003312 - 0.789661I$ $b = -0.733347 - 0.206691I$	$3.00880 + 7.71935I$	0
$u = 1.24493 - 0.88674I$ $a = 0.003312 + 0.789661I$ $b = -0.733347 + 0.206691I$	$3.00880 - 7.71935I$	0
$u = -0.453705 + 0.067556I$ $a = 1.09810 - 1.34637I$ $b = -1.45141 - 1.20638I$	$1.44591 + 2.04368I$	$6.19891 - 7.65821I$
$u = -0.453705 - 0.067556I$ $a = 1.09810 + 1.34637I$ $b = -1.45141 + 1.20638I$	$1.44591 - 2.04368I$	$6.19891 + 7.65821I$
$u = -0.404516 + 0.160541I$ $a = 0.82003 + 2.15188I$ $b = -0.441070 + 0.879956I$	$-0.767799 + 0.707140I$	$-1.24485 - 4.27067I$
$u = -0.404516 - 0.160541I$ $a = 0.82003 - 2.15188I$ $b = -0.441070 - 0.879956I$	$-0.767799 - 0.707140I$	$-1.24485 + 4.27067I$
$u = -1.25351 + 0.99399I$ $a = -0.115660 + 0.761637I$ $b = -0.736192 + 0.183930I$	$9.1239 - 11.3929I$	0
$u = -1.25351 - 0.99399I$ $a = -0.115660 - 0.761637I$ $b = -0.736192 - 0.183930I$	$9.1239 + 11.3929I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.36377+1.56837I$ $a=\ \ 0.237958+0.409554I$ $b=\ \ 0.677280+1.077370I$	$-1.81586+7.53048I$	0
$u=-0.36377-1.56837I$ $a=\ \ 0.237958-0.409554I$ $b=\ \ 0.677280-1.077370I$	$-1.81586-7.53048I$	0
$u=\ \ 1.51405+0.60574I$ $a=-0.697006+0.215750I$ $b=\ \ 1.53643+0.52266I$	$7.01799-4.89766I$	0
$u=\ \ 1.51405-0.60574I$ $a=-0.697006-0.215750I$ $b=\ \ 1.53643-0.52266I$	$7.01799+4.89766I$	0
$u=-1.12746+1.17840I$ $a=\ \ 0.077668+0.451088I$ $b=-1.04228+1.32124I$	$8.59840+2.41577I$	0
$u=-1.12746-1.17840I$ $a=\ \ 0.077668-0.451088I$ $b=-1.04228-1.32124I$	$8.59840-2.41577I$	0
$u=\ \ 1.52190+0.73520I$ $a=\ \ 0.091226-0.489453I$ $b=-0.673521-0.205430I$	$10.39060+0.33751I$	0
$u=\ \ 1.52190-0.73520I$ $a=\ \ 0.091226+0.489453I$ $b=-0.673521+0.205430I$	$10.39060-0.33751I$	0
$u=-1.37300+1.05302I$ $a=\ \ 0.247643+0.695092I$ $b=-1.27363+0.94541I$	$2.36016-7.44357I$	0
$u=-1.37300-1.05302I$ $a=\ \ 0.247643-0.695092I$ $b=-1.27363-0.94541I$	$2.36016+7.44357I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.47056 + 1.67845I$ $a = 0.246842 - 0.393743I$ $b = 0.681559 - 0.993043I$	$4.42249 - 11.60810I$	0
$u = 0.47056 - 1.67845I$ $a = 0.246842 + 0.393743I$ $b = 0.681559 + 0.993043I$	$4.42249 + 11.60810I$	0
$u = 1.34694 + 1.13133I$ $a = 0.119382 - 0.726589I$ $b = -1.15971 - 0.96631I$	$9.5516 + 10.5652I$	0
$u = 1.34694 - 1.13133I$ $a = 0.119382 + 0.726589I$ $b = -1.15971 + 0.96631I$	$9.5516 - 10.5652I$	0
$u = -1.81161$ $a = -0.588467$ $b = 1.85662$	2.24749	0
$u = 0.149531 + 0.022926I$ $a = 3.10840 + 10.08440I$ $b = 0.677148 + 0.214687I$	$4.86393 + 2.30422I$	$5.13678 - 7.19189I$
$u = 0.149531 - 0.022926I$ $a = 3.10840 - 10.08440I$ $b = 0.677148 - 0.214687I$	$4.86393 - 2.30422I$	$5.13678 + 7.19189I$
$u = -0.07748 + 1.89589I$ $a = 0.421157 + 0.046884I$ $b = 0.432044 + 0.349969I$	$4.00496 - 0.11590I$	0
$u = -0.07748 - 1.89589I$ $a = 0.421157 - 0.046884I$ $b = 0.432044 - 0.349969I$	$4.00496 + 0.11590I$	0
$u = 1.51690 + 1.21579I$ $a = 0.246784 - 0.484838I$ $b = -1.45141 - 1.20638I$	$1.44591 + 2.04368I$	0

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 1.51690 - 1.21579I$ $a = \quad 0.246784 + 0.484838I$ $b = -1.45141 + 1.20638I$	$1.44591 - 2.04368I$	0
$u = \quad 0.00499 + 1.94799I$ $a = \quad 0.181253 + 0.319408I$ $b = \quad 0.327313 + 0.897043I$	$6.88898 - 0.12974I$	0
$u = \quad 0.00499 - 1.94799I$ $a = \quad 0.181253 - 0.319408I$ $b = \quad 0.327313 - 0.897043I$	$6.88898 + 0.12974I$	0
$u = \quad 3.02357 + 0.90413I$ $a = -0.0518628 + 0.0420595I$ $b = -0.366627 + 0.170388I$	$5.01112 + 0.52164I$	0
$u = \quad 3.02357 - 0.90413I$ $a = -0.0518628 - 0.0420595I$ $b = -0.366627 - 0.170388I$	$5.01112 - 0.52164I$	0
$u = \quad 8.91180$ $a = -0.0139790$ $b = \quad 0.0996704$	0.00210462	0

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_3	$(u^{25}-3u^{24}+\cdots-40u+56)(u^{35}-3u^{34}+\cdots+13u-1)$ $\cdot(u^{116}+5u^{115}+\cdots-293824u-18872)$
c_2	$(u^{25}-8u^{24}+\cdots-3u-1)(u^{35}-25u^{34}+\cdots+24576u-2048)$ $\cdot(u^{58}+14u^{57}+\cdots+2u+1)^2$
c_4, c_{11}	$64(8u^{25}+8u^{24}+\cdots+5u^2+1)(u^{35}+7u^{34}+\cdots-3u+1)$ $\cdot(8u^{116}+104u^{115}+\cdots-107834072u+36867937)$
c_5, c_{10}	$64(8u^{25}-8u^{24}+\cdots+11u^2-1)(u^{35}+5u^{34}+\cdots-3u+1)$ $\cdot(8u^{116}+104u^{115}+\cdots+65126u-4735)$
c_6, c_9	$(u^{25}-u^{24}+\cdots-8u-8)(u^{35}-u^{34}+\cdots+8u-1)$ $\cdot(u^{116}+15u^{115}+\cdots+417760u+52936)$
c_7, c_8	$(u^{25}+2u^{24}+\cdots-2u+1)(u^{35}+11u^{34}+\cdots+384u+32)$ $\cdot(u^{58}-6u^{57}+\cdots-24u+1)^2$
c_{12}	$(u^{25}-2u^{24}+\cdots-2u-1)(u^{35}+11u^{34}+\cdots+384u+32)$ $\cdot(u^{58}-6u^{57}+\cdots-24u+1)^2$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3	$(y^{25} - 3y^{24} + \cdots + 19072y - 3136)(y^{35} + 11y^{34} + \cdots + 29y - 1)$ $\cdot (y^{116} - 93y^{115} + \cdots - 74449976896y + 356152384)$
c_2	$(y^{25} + 10y^{24} + \cdots + 37y - 1)$ $\cdot (y^{35} + 15y^{34} + \cdots - 90177536y - 4194304)$ $\cdot (y^{58} - 14y^{57} + \cdots - 132y + 1)^2$
c_4, c_{11}	$4096(64y^{25} - 448y^{24} + \cdots - 10y - 1)(y^{35} - 51y^{34} + \cdots + 35y - 1)$ $\cdot (64y^{116} - 6720y^{115} + \cdots - 1.68 \times 10^{17}y + 1.36 \times 10^{15})$
c_5, c_{10}	$4096(64y^{25} - 704y^{24} + \cdots + 22y - 1)(y^{35} - 39y^{34} + \cdots + 27y - 1)$ $\cdot (64y^{116} - 5184y^{115} + \cdots - 3550066936y + 22420225)$
c_6, c_9	$(y^{25} - 7y^{24} + \cdots + 192y - 64)(y^{35} - y^{34} + \cdots + 28y - 1)$ $\cdot (y^{116} - 105y^{115} + \cdots - 367121525120y + 2802220096)$
c_7, c_8, c_{12}	$(y^{25} + 26y^{24} + \cdots + 46y - 1)(y^{35} + 31y^{34} + \cdots - 7680y - 1024)$ $\cdot (y^{58} + 58y^{57} + \cdots - 272y + 1)^2$