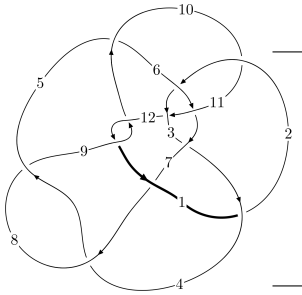
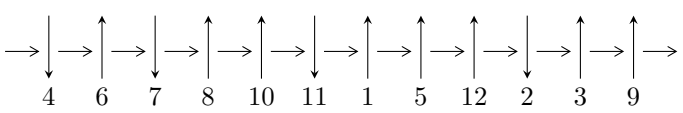
$12a_{0866}$ $(K12a_{0866})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.24767 \times 10^{1341} u^{187} - 6.06121 \times 10^{1341} u^{186} + \cdots + 1.20162 \times 10^{1340} b - 1.42251 \times 10^{1344},$$
$$- 1.08645 \times 10^{1344} u^{187} + 5.42636 \times 10^{1344} u^{186} + \cdots + 1.18840 \times 10^{1343} a + 1.08070 \times 10^{1347},$$
$$u^{188} - 4u^{187} + \cdots + 7531u - 989 \rangle$$
$$I_2^u = \langle 5.47253 \times 10^{48} u^{40} + 2.46107 \times 10^{49} u^{39} + \cdots + 2.70094 \times 10^{48} b - 2.27197 \times 10^{49},$$
$$5.87231 \times 10^{49} u^{40} + 3.06842 \times 10^{50} u^{39} + \cdots + 1.35047 \times 10^{49} a + 1.26775 \times 10^{50},\ u^{41} + 5u^{40} + \cdots + 17u -$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 229 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. $\boldsymbol{I_1^u = \langle 1.25 \times 10^{1341} u^{187} - 6.06 \times 10^{1341} u^{186} + \cdots + 1.20 \times 10^{1340} b - 1.42 \times 10^{1344},\ -1.09 \times 10^{1344} u^{187} + 5.43 \times 10^{1344} u^{186} + \cdots + 1.19 \times 10^{1343} a + 1.08 \times 10^{1347},\ u^{188} - 4u^{187} + \cdots + 7531u - 989 \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 9.14209u^{187} - 45.6610u^{186} + \cdots + 77974.1u - 9093.73 \\ -10.3833u^{187} + 50.4421u^{186} + \cdots - 103634.u + 11838.3 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 16.1336u^{187} - 79.2255u^{186} + \cdots + 152087.u - 17506.2 \\ -13.0510u^{187} + 63.5393u^{186} + \cdots - 128670.u + 14714.0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 4.81314u^{187} - 19.8634u^{186} + \cdots + 85954.6u - 9389.88 \\ -27.3580u^{187} + 135.878u^{186} + \cdots - 241043.u + 27898.5 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -91.1154u^{187} + 440.842u^{186} + \cdots - 922623.u + 105239. \\ -29.3795u^{187} + 141.566u^{186} + \cdots - 304669.u + 34670.2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 19.5253u^{187} - 96.1031u^{186} + \cdots + 181608.u - 20932.0 \\ -10.3833u^{187} + 50.4421u^{186} + \cdots - 103634.u + 11838.3 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -26.9895u^{187} + 133.796u^{186} + \cdots - 240679.u + 27819.1 \\ 32.6104u^{187} - 161.781u^{186} + \cdots + 288032.u - 33339.2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -7.02113u^{187} + 30.1516u^{186} + \cdots - 112632.u + 12396.8 \\ 35.4198u^{187} - 173.953u^{186} + \cdots + 332397.u - 38206.8 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -28.6648u^{187} + 141.794u^{186} + \cdots - 257959.u + 29772.2 \\ 8.27554u^{187} - 41.9809u^{186} + \cdots + 63753.9u - 7503.36 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -481.352u^{187} + 2357.49u^{186} + \cdots - 4.57027 \times 10^6 u + 524827.$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{188} + 6u^{187} + \cdots - 20266u + 1447$
c_2	$u^{188} - 10u^{187} + \cdots + 235u + 43$
c_3	$u^{188} - 2u^{187} + \cdots + 2896580u - 507209$
c_4, c_8	$u^{188} + 4u^{187} + \cdots - 7531u - 989$
c_5	$u^{188} + 2u^{187} + \cdots + 11973792223u + 765934129$
c_6	$u^{188} + u^{187} + \cdots + 7u + 1$
c_7	$u^{188} + 3u^{187} + \cdots - 30u + 1$
c_9, c_{12}	$u^{188} - 7u^{187} + \cdots + 192850u + 10363$
c_{10}	$u^{188} + 6u^{187} + \cdots + 410u - 76$
c_{11}	$u^{188} - u^{187} + \cdots + 41u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{188} + 40y^{187} + \cdots - 47377738y + 2093809$
c_2	$y^{188} + 8y^{187} + \cdots - 114049y + 1849$
c_3	$y^{188} - 58y^{187} + \cdots + 8743433592384y + 257260969681$
c_4, c_8	$y^{188} - 128y^{187} + \cdots - 18934183y + 978121$
c_5	$y^{188} - 48y^{187} + \cdots + 2.08 \times 10^{18}y + 5.87 \times 10^{17}$
c_6	$y^{188} - 27y^{187} + \cdots + 57y + 1$
c_7	$y^{188} + 5y^{187} + \cdots - 2302y + 1$
c_9, c_{12}	$y^{188} + 125y^{187} + \cdots - 9867145482y + 107391769$
c_{10}	$y^{188} + 22y^{187} + \cdots - 151228y + 5776$
c_{11}	$y^{188} + 29y^{187} + \cdots - 229y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.932910+0.374890I$ $a=1.93328+0.53959I$ $b=1.123310-0.276983I$	$0.26621+1.83399I$	0
$u=-0.932910-0.374890I$ $a=1.93328-0.53959I$ $b=1.123310+0.276983I$	$0.26621-1.83399I$	0
$u=-0.996598+0.144886I$ $a=-2.37463-0.07204I$ $b=-0.661471+1.177300I$	$1.61320-3.13498I$	0
$u=-0.996598-0.144886I$ $a=-2.37463+0.07204I$ $b=-0.661471-1.177300I$	$1.61320+3.13498I$	0
$u=0.800663+0.583733I$ $a=1.197290+0.283815I$ $b=0.082533+0.797857I$	$-2.64474-0.80224I$	0
$u=0.800663-0.583733I$ $a=1.197290-0.283815I$ $b=0.082533-0.797857I$	$-2.64474+0.80224I$	0
$u=0.280613+0.974237I$ $a=-0.195986+0.061527I$ $b=-0.297082-1.268980I$	$-4.21564+6.12609I$	0
$u=0.280613-0.974237I$ $a=-0.195986-0.061527I$ $b=-0.297082+1.268980I$	$-4.21564-6.12609I$	0
$u=-0.953703+0.344085I$ $a=-2.58886-0.58396I$ $b=-0.191327+0.971063I$	$-0.56636-3.02247I$	0
$u=-0.953703-0.344085I$ $a=-2.58886+0.58396I$ $b=-0.191327-0.971063I$	$-0.56636+3.02247I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.172844 + 0.966991I$ $a = 0.0155280 - 0.0442956I$ $b = -0.626328 + 0.656072I$	$-0.12719 - 4.04432I$	0
$u = 0.172844 - 0.966991I$ $a = 0.0155280 + 0.0442956I$ $b = -0.626328 - 0.656072I$	$-0.12719 + 4.04432I$	0
$u = 0.736916 + 0.723769I$ $a = 0.000229 - 0.277822I$ $b = 0.366600 - 1.164660I$	$-4.93759 + 1.08711I$	0
$u = 0.736916 - 0.723769I$ $a = 0.000229 + 0.277822I$ $b = 0.366600 + 1.164660I$	$-4.93759 - 1.08711I$	0
$u = -0.609610 + 0.748627I$ $a = -0.262180 + 0.497281I$ $b = 0.497626 + 1.308700I$	$-3.68931 + 7.69977I$	0
$u = -0.609610 - 0.748627I$ $a = -0.262180 - 0.497281I$ $b = 0.497626 - 1.308700I$	$-3.68931 - 7.69977I$	0
$u = -1.038000 + 0.080493I$ $a = 2.46547 + 0.95386I$ $b = 0.179638 - 1.089340I$	$0.30068 - 2.24515I$	0
$u = -1.038000 - 0.080493I$ $a = 2.46547 - 0.95386I$ $b = 0.179638 + 1.089340I$	$0.30068 + 2.24515I$	0
$u = -0.953690 + 0.069302I$ $a = -2.55229 + 2.99071I$ $b = -0.062350 + 0.903689I$	$-0.07109 + 1.84615I$	0
$u = -0.953690 - 0.069302I$ $a = -2.55229 - 2.99071I$ $b = -0.062350 - 0.903689I$	$-0.07109 - 1.84615I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.247844 + 0.918350I$ $a = 0.171410 + 0.124767I$ $b = 0.380055 - 1.188200I$	$-5.72199 - 3.82704I$	0
$u = 0.247844 - 0.918350I$ $a = 0.171410 - 0.124767I$ $b = 0.380055 + 1.188200I$	$-5.72199 + 3.82704I$	0
$u = 1.016160 + 0.279333I$ $a = -1.32792 - 1.12807I$ $b = -0.318385 - 1.351560I$	$-4.11608 + 5.09222I$	0
$u = 1.016160 - 0.279333I$ $a = -1.32792 + 1.12807I$ $b = -0.318385 + 1.351560I$	$-4.11608 - 5.09222I$	0
$u = -0.942738 + 0.076772I$ $a = 0.24442 + 1.97437I$ $b = 0.37388 + 2.54242I$	$-2.69291 - 5.56907I$	0
$u = -0.942738 - 0.076772I$ $a = 0.24442 - 1.97437I$ $b = 0.37388 - 2.54242I$	$-2.69291 + 5.56907I$	0
$u = -0.931386 + 0.164279I$ $a = 1.50354 - 1.63984I$ $b = 0.84771 - 1.76028I$	$-2.47084 + 4.49392I$	0
$u = -0.931386 - 0.164279I$ $a = 1.50354 + 1.63984I$ $b = 0.84771 + 1.76028I$	$-2.47084 - 4.49392I$	0
$u = 1.016610 + 0.300180I$ $a = -1.60567 - 0.80847I$ $b = -0.80045 - 1.66492I$	$0.40390 + 5.46386I$	0
$u = 1.016610 - 0.300180I$ $a = -1.60567 + 0.80847I$ $b = -0.80045 + 1.66492I$	$0.40390 - 5.46386I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.931355+0.126822I$ $a=-1.14362-2.09217I$ $b=-0.433763+0.940358I$	$1.27100-2.30835I$	0
$u=-0.931355-0.126822I$ $a=-1.14362+2.09217I$ $b=-0.433763-0.940358I$	$1.27100+2.30835I$	0
$u=-0.928997+0.042924I$ $a=-2.65896+0.58032I$ $b=-0.235262-1.034350I$	$-0.32335-2.05968I$	0
$u=-0.928997-0.042924I$ $a=-2.65896-0.58032I$ $b=-0.235262+1.034350I$	$-0.32335+2.05968I$	0
$u=-0.942354+0.524880I$ $a=\ 1.80087-0.11794I$ $b=\ 0.86557-1.30655I$	$-2.65383-12.54390I$	0
$u=-0.942354-0.524880I$ $a=\ 1.80087+0.11794I$ $b=\ 0.86557+1.30655I$	$-2.65383+12.54390I$	0
$u=-0.417946+1.000310I$ $a=\ 0.027120-0.411580I$ $b=\ 0.275988+0.383954I$	$2.18370-2.82632I$	0
$u=-0.417946-1.000310I$ $a=\ 0.027120+0.411580I$ $b=\ 0.275988-0.383954I$	$2.18370+2.82632I$	0
$u=\ 1.057050+0.242918I$ $a=-1.070400-0.144920I$ $b=-0.39783-1.39628I$	$1.05193+5.23933I$	0
$u=\ 1.057050-0.242918I$ $a=-1.070400+0.144920I$ $b=-0.39783+1.39628I$	$1.05193-5.23933I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.237227 + 0.882104I$ $a = -0.354769 - 0.663091I$ $b = -0.12411 + 1.42857I$	$-6.92090 - 6.38065I$	0
$u = 0.237227 - 0.882104I$ $a = -0.354769 + 0.663091I$ $b = -0.12411 - 1.42857I$	$-6.92090 + 6.38065I$	0
$u = 1.090090 + 0.011000I$ $a = 1.160750 - 0.408266I$ $b = 0.381844 + 0.959733I$	$3.78101 - 4.02611I$	0
$u = 1.090090 - 0.011000I$ $a = 1.160750 + 0.408266I$ $b = 0.381844 - 0.959733I$	$3.78101 + 4.02611I$	0
$u = 0.914975 + 0.597866I$ $a = 1.59622 - 0.03954I$ $b = 0.599089 + 1.063460I$	$-4.34659 + 4.04045I$	0
$u = 0.914975 - 0.597866I$ $a = 1.59622 + 0.03954I$ $b = 0.599089 - 1.063460I$	$-4.34659 - 4.04045I$	0
$u = 1.093010 + 0.065407I$ $a = -1.71754 - 0.37225I$ $b = -0.809823 - 0.988272I$	$4.18823 + 2.92442I$	0
$u = 1.093010 - 0.065407I$ $a = -1.71754 + 0.37225I$ $b = -0.809823 + 0.988272I$	$4.18823 - 2.92442I$	0
$u = 0.066934 + 1.096880I$ $a = 0.412070 + 0.213355I$ $b = -0.178244 - 1.170140I$	$-4.65014 - 0.13962I$	0
$u = 0.066934 - 1.096880I$ $a = 0.412070 - 0.213355I$ $b = -0.178244 + 1.170140I$	$-4.65014 + 0.13962I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.093090 + 0.173955I$ $a = 2.04200 - 0.48788I$ $b = 0.482888 + 1.167770I$	$1.18880 + 11.58080I$	0
$u = 1.093090 - 0.173955I$ $a = 2.04200 + 0.48788I$ $b = 0.482888 - 1.167770I$	$1.18880 - 11.58080I$	0
$u = -0.878264 + 0.721877I$ $a = -1.126510 - 0.251981I$ $b = -0.515284 + 1.152270I$	$-2.79956 - 3.72194I$	0
$u = -0.878264 - 0.721877I$ $a = -1.126510 + 0.251981I$ $b = -0.515284 - 1.152270I$	$-2.79956 + 3.72194I$	0
$u = -0.143077 + 0.849929I$ $a = 0.242181 - 0.368221I$ $b = 0.14744 + 1.41971I$	$-8.11135 - 2.13818I$	0
$u = -0.143077 - 0.849929I$ $a = 0.242181 + 0.368221I$ $b = 0.14744 - 1.41971I$	$-8.11135 + 2.13818I$	0
$u = 0.793452 + 0.299761I$ $a = 1.35201 - 0.73462I$ $b = 0.418218 - 0.580742I$	$-1.41059 + 3.56442I$	0
$u = 0.793452 - 0.299761I$ $a = 1.35201 + 0.73462I$ $b = 0.418218 + 0.580742I$	$-1.41059 - 3.56442I$	0
$u = 0.838506 + 0.050942I$ $a = 0.246489 + 0.431691I$ $b = -0.05190 + 1.74333I$	$-5.30636 - 3.63476I$	0
$u = 0.838506 - 0.050942I$ $a = 0.246489 - 0.431691I$ $b = -0.05190 - 1.74333I$	$-5.30636 + 3.63476I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.797427 + 0.258233I$ $a = 0.69037 - 1.29689I$ $b = 0.58984 - 1.47107I$	$-2.17733 + 3.18711I$	0
$u = 0.797427 - 0.258233I$ $a = 0.69037 + 1.29689I$ $b = 0.58984 + 1.47107I$	$-2.17733 - 3.18711I$	0
$u = 0.038241 + 1.174580I$ $a = -0.049450 - 0.293969I$ $b = -0.449129 + 1.321610I$	$-3.24404 - 6.81988I$	0
$u = 0.038241 - 1.174580I$ $a = -0.049450 + 0.293969I$ $b = -0.449129 - 1.321610I$	$-3.24404 + 6.81988I$	0
$u = -0.737573 + 0.344825I$ $a = -0.401872 + 0.424727I$ $b = -0.542224 + 0.055030I$	$0.314526 + 0.273439I$	0
$u = -0.737573 - 0.344825I$ $a = -0.401872 - 0.424727I$ $b = -0.542224 - 0.055030I$	$0.314526 - 0.273439I$	0
$u = -0.760331 + 0.912279I$ $a = -0.700304 - 0.833920I$ $b = -0.178329 + 0.739824I$	$-1.59398 - 4.71317I$	0
$u = -0.760331 - 0.912279I$ $a = -0.700304 + 0.833920I$ $b = -0.178329 - 0.739824I$	$-1.59398 + 4.71317I$	0
$u = -0.792395 + 0.075302I$ $a = 1.91632 + 0.06197I$ $b = -0.303307 - 0.856990I$	$0.88217 + 1.81809I$	0
$u = -0.792395 - 0.075302I$ $a = 1.91632 - 0.06197I$ $b = -0.303307 + 0.856990I$	$0.88217 - 1.81809I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.689860+0.992521I$ $a=\ \ 0.246278-0.263116I$ $b=-0.267383-1.139260I$	$-3.48813-2.56118I$	0
$u=-0.689860-0.992521I$ $a=\ \ 0.246278+0.263116I$ $b=-0.267383+1.139260I$	$-3.48813+2.56118I$	0
$u=\ \ 1.172210+0.333764I$ $a=-1.166690+0.620790I$ $b=-1.34470+0.69553I$	$4.39351+2.17711I$	0
$u=\ \ 1.172210-0.333764I$ $a=-1.166690-0.620790I$ $b=-1.34470-0.69553I$	$4.39351-2.17711I$	0
$u=-1.055890+0.666769I$ $a=\ \ 0.950237+0.098821I$ $b=-0.101000-0.882782I$	$0.490665-0.628637I$	0
$u=-1.055890-0.666769I$ $a=\ \ 0.950237-0.098821I$ $b=-0.101000+0.882782I$	$0.490665+0.628637I$	0
$u=-1.233300+0.221792I$ $a=-1.69296+0.01656I$ $b=-1.376200-0.084632I$	$4.86637-4.55618I$	0
$u=-1.233300-0.221792I$ $a=-1.69296-0.01656I$ $b=-1.376200+0.084632I$	$4.86637+4.55618I$	0
$u=-1.210390+0.340081I$ $a=-1.011680+0.639835I$ $b=-0.68903+1.48663I$	$-0.32590-4.89336I$	0
$u=-1.210390-0.340081I$ $a=-1.011680-0.639835I$ $b=-0.68903-1.48663I$	$-0.32590+4.89336I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.042559+1.272700I$ $a=\ 0.106273-0.199339I$ $b=\ 0.446988+1.265610I$	$-4.3002+15.1636I$	0
$u=-0.042559-1.272700I$ $a=\ 0.106273+0.199339I$ $b=\ 0.446988-1.265610I$	$-4.3002-15.1636I$	0
$u=\ 1.237330+0.318025I$ $a=-1.63120+0.25335I$ $b=-1.51362-0.10706I$	$5.69770+5.54914I$	0
$u=\ 1.237330-0.318025I$ $a=-1.63120-0.25335I$ $b=-1.51362+0.10706I$	$5.69770-5.54914I$	0
$u=\ 1.274920+0.121531I$ $a=-1.328670+0.056009I$ $b=-1.160930+0.104440I$	$6.07502+0.48235I$	0
$u=\ 1.274920-0.121531I$ $a=-1.328670-0.056009I$ $b=-1.160930-0.104440I$	$6.07502-0.48235I$	0
$u=\ 1.225570+0.390920I$ $a=\ 1.242890-0.270708I$ $b=\ 0.992814-0.260230I$	$2.24094+7.27695I$	0
$u=\ 1.225570-0.390920I$ $a=\ 1.242890+0.270708I$ $b=\ 0.992814+0.260230I$	$2.24094-7.27695I$	0
$u=-1.286800+0.063950I$ $a=\ 0.33795-1.66749I$ $b=-0.144268-0.703422I$	$2.39969+0.70690I$	0
$u=-1.286800-0.063950I$ $a=\ 0.33795+1.66749I$ $b=-0.144268+0.703422I$	$2.39969-0.70690I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.136227 + 1.285270I$ $a = 0.173581 + 0.197725I$ $b = 0.327236 - 1.141150I$	$-4.80765 - 6.38541I$	0
$u = 0.136227 - 1.285270I$ $a = 0.173581 - 0.197725I$ $b = 0.327236 + 1.141150I$	$-4.80765 + 6.38541I$	0
$u = 0.702869 + 0.057996I$ $a = -2.72893 + 0.77261I$ $b = 0.201167 + 0.662724I$	$-0.52183 + 10.48050I$	0
$u = 0.702869 - 0.057996I$ $a = -2.72893 - 0.77261I$ $b = 0.201167 - 0.662724I$	$-0.52183 - 10.48050I$	0
$u = 1.288290 + 0.163301I$ $a = -1.52727 - 0.61324I$ $b = -0.964652 - 0.702479I$	$5.08321 + 3.68372I$	0
$u = 1.288290 - 0.163301I$ $a = -1.52727 + 0.61324I$ $b = -0.964652 + 0.702479I$	$5.08321 - 3.68372I$	0
$u = 0.625160 + 0.313756I$ $a = 1.92785 + 0.16397I$ $b = 0.781365 + 0.542075I$	$-2.52291 - 0.24082I$	0
$u = 0.625160 - 0.313756I$ $a = 1.92785 - 0.16397I$ $b = 0.781365 - 0.542075I$	$-2.52291 + 0.24082I$	0
$u = -1.275200 + 0.279077I$ $a = 1.016160 - 0.230755I$ $b = 0.216454 - 0.841733I$	$0.97220 - 1.12401I$	0
$u = -1.275200 - 0.279077I$ $a = 1.016160 + 0.230755I$ $b = 0.216454 + 0.841733I$	$0.97220 + 1.12401I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.203870 + 0.514891I$ $a = 1.66892 + 0.24257I$ $b = 0.669345 + 1.161300I$	$-2.72364 + 8.99909I$	0
$u = 1.203870 - 0.514891I$ $a = 1.66892 - 0.24257I$ $b = 0.669345 - 1.161300I$	$-2.72364 - 8.99909I$	0
$u = 0.280944 + 0.624914I$ $a = -0.397842 + 1.214640I$ $b = 0.677791 + 0.115239I$	$-0.33402 + 10.82870I$	0
$u = 0.280944 - 0.624914I$ $a = -0.397842 - 1.214640I$ $b = 0.677791 - 0.115239I$	$-0.33402 - 10.82870I$	0
$u = -1.313350 + 0.066298I$ $a = 0.503375 - 0.445082I$ $b = 0.141304 + 0.011398I$	$2.60885 + 0.38010I$	0
$u = -1.313350 - 0.066298I$ $a = 0.503375 + 0.445082I$ $b = 0.141304 - 0.011398I$	$2.60885 - 0.38010I$	0
$u = 1.225930 + 0.487300I$ $a = -1.73908 - 0.41691I$ $b = -0.255367 - 1.261240I$	$-3.78838 + 11.37000I$	0
$u = 1.225930 - 0.487300I$ $a = -1.73908 + 0.41691I$ $b = -0.255367 + 1.261240I$	$-3.78838 - 11.37000I$	0
$u = -1.267900 + 0.369952I$ $a = 1.45749 + 0.29255I$ $b = 1.43189 + 0.09759I$	$4.0219 - 14.5167I$	0
$u = -1.267900 - 0.369952I$ $a = 1.45749 - 0.29255I$ $b = 1.43189 - 0.09759I$	$4.0219 + 14.5167I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.243650+0.457547I$ $a=\ \ 1.61596-0.57051I$ $b=\ \ 0.386573-1.282890I$	$-4.67811-2.62718I$	0
$u=-1.243650-0.457547I$ $a=\ \ 1.61596+0.57051I$ $b=\ \ 0.386573+1.282890I$	$-4.67811+2.62718I$	0
$u=\ \ 1.344450+0.052059I$ $a=\ \ 0.846673-0.926095I$ $b=\ \ 0.685074-0.303345I$	$3.82994+7.06531I$	0
$u=\ \ 1.344450-0.052059I$ $a=\ \ 0.846673+0.926095I$ $b=\ \ 0.685074+0.303345I$	$3.82994-7.06531I$	0
$u=-0.298814+0.582284I$ $a=\ \ 0.501492+0.589634I$ $b=-0.734903+0.253216I$	$1.37252-2.34420I$	0
$u=-0.298814-0.582284I$ $a=\ \ 0.501492-0.589634I$ $b=-0.734903-0.253216I$	$1.37252+2.34420I$	0
$u=\ \ 0.524688+1.240660I$ $a=-0.184972+0.491833I$ $b=\ \ 0.286579-0.954381I$	$0.82739-5.64505I$	0
$u=\ \ 0.524688-1.240660I$ $a=-0.184972-0.491833I$ $b=\ \ 0.286579+0.954381I$	$0.82739+5.64505I$	0
$u=-1.316870+0.332700I$ $a=-1.119410+0.109239I$ $b=-0.970468-0.052702I$	$3.41416-5.99433I$	0
$u=-1.316870-0.332700I$ $a=-1.119410-0.109239I$ $b=-0.970468+0.052702I$	$3.41416+5.99433I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.169870+0.702461I$ $a=\ \ 0.872281+0.345641I$ $b=\ \ 0.173247-1.099880I$	$0.279407-1.380150I$	0
$u=-1.169870-0.702461I$ $a=\ \ 0.872281-0.345641I$ $b=\ \ 0.173247+1.099880I$	$0.279407+1.380150I$	0
$u=-1.335590+0.297697I$ $a=\ \ 0.895012+0.271081I$ $b=\ \ 0.864981+0.579635I$	$6.92609+1.69202I$	0
$u=-1.335590-0.297697I$ $a=\ \ 0.895012-0.271081I$ $b=\ \ 0.864981-0.579635I$	$6.92609-1.69202I$	0
$u=\ \ 0.464000+0.412112I$ $a=\ \ 1.170960-0.452696I$ $b=\ \ 0.555009-0.071113I$	$-2.20672-0.16388I$	0
$u=\ \ 0.464000-0.412112I$ $a=\ \ 1.170960+0.452696I$ $b=\ \ 0.555009+0.071113I$	$-2.20672+0.16388I$	0
$u=\ \ 0.054521+0.612898I$ $a=\ \ 0.801353-0.681042I$ $b=-0.276445+1.160900I$	$-1.92177-2.72881I$	0
$u=\ \ 0.054521-0.612898I$ $a=\ \ 0.801353+0.681042I$ $b=-0.276445-1.160900I$	$-1.92177+2.72881I$	0
$u=\ \ 1.262480+0.593621I$ $a=-1.379590+0.129524I$ $b=-0.874746-1.004710I$	$3.13171+9.71662I$	0
$u=\ \ 1.262480-0.593621I$ $a=-1.379590-0.129524I$ $b=-0.874746+1.004710I$	$3.13171-9.71662I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.039229+0.602811I$ $a=\ 0.724272-1.129440I$ $b=\ 0.455629-0.132455I$	$-1.45671-3.45841I$	0
$u=-0.039229-0.602811I$ $a=\ 0.724272+1.129440I$ $b=\ 0.455629+0.132455I$	$-1.45671+3.45841I$	0
$u=\ 0.601553$ $a=-3.51220$ $b=-1.29166$	1.59492	0
$u=-0.322276+0.501776I$ $a=\ 0.114286+0.849844I$ $b=\ 0.875562+0.623564I$	$-1.29729-5.33922I$	0
$u=-0.322276-0.501776I$ $a=\ 0.114286-0.849844I$ $b=\ 0.875562-0.623564I$	$-1.29729+5.33922I$	0
$u=\ 1.337300+0.426723I$ $a=-1.312820-0.281781I$ $b=-0.62436-1.32387I$	$2.29872+6.76585I$	0
$u=\ 1.337300-0.426723I$ $a=-1.312820+0.281781I$ $b=-0.62436+1.32387I$	$2.29872-6.76585I$	0
$u=\ 1.358890+0.366542I$ $a=\ 0.942302-0.258572I$ $b=\ 0.910493-0.158063I$	$7.53133+7.30721I$	0
$u=\ 1.358890-0.366542I$ $a=\ 0.942302+0.258572I$ $b=\ 0.910493+0.158063I$	$7.53133-7.30721I$	0
$u=\ 1.054390+0.938320I$ $a=\ 0.789677-0.214326I$ $b=\ 0.119978+0.787453I$	$-2.91575+3.65835I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.054390 - 0.938320I$ $a = 0.789677 + 0.214326I$ $b = 0.119978 - 0.787453I$	$-2.91575 - 3.65835I$	0
$u = -0.540970 + 0.215038I$ $a = 2.19712 + 0.25264I$ $b = -0.340833 - 0.221987I$	$0.803133 + 0.043679I$	0
$u = -0.540970 - 0.215038I$ $a = 2.19712 - 0.25264I$ $b = -0.340833 + 0.221987I$	$0.803133 - 0.043679I$	0
$u = 1.28045 + 0.60963I$ $a = 1.158220 + 0.241375I$ $b = 0.138029 + 0.859303I$	$-0.94409 + 6.18960I$	0
$u = 1.28045 - 0.60963I$ $a = 1.158220 - 0.241375I$ $b = 0.138029 - 0.859303I$	$-0.94409 - 6.18960I$	0
$u = -1.39339 + 0.30307I$ $a = -0.742021 - 0.265368I$ $b = -0.995971 - 0.080948I$	$5.02981 - 0.81679I$	0
$u = -1.39339 - 0.30307I$ $a = -0.742021 + 0.265368I$ $b = -0.995971 + 0.080948I$	$5.02981 + 0.81679I$	0
$u = 0.15925 + 1.41721I$ $a = -0.0599314 + 0.1206730I$ $b = -0.238860 - 1.170030I$	$-5.41255 + 4.51169I$	0
$u = 0.15925 - 1.41721I$ $a = -0.0599314 - 0.1206730I$ $b = -0.238860 + 1.170030I$	$-5.41255 - 4.51169I$	0
$u = -1.08163 + 0.97988I$ $a = -0.360481 - 0.385020I$ $b = -0.289498 + 0.674799I$	$2.46803 - 2.74768I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.08163-0.97988I$ $a=-0.360481+0.385020I$ $b=-0.289498-0.674799I$	$2.46803+2.74768I$	0
$u=\ \ 1.35294+0.57563I$ $a=-1.46670-0.22727I$ $b=-0.67192-1.47492I$	$0.85959+12.91490I$	0
$u=\ \ 1.35294-0.57563I$ $a=-1.46670+0.22727I$ $b=-0.67192+1.47492I$	$0.85959-12.91490I$	0
$u=-1.35338+0.61297I$ $a=\ \ 1.139680+0.050554I$ $b=\ \ 0.607537-1.012880I$	$5.51021-3.73980I$	0
$u=-1.35338-0.61297I$ $a=\ \ 1.139680-0.050554I$ $b=\ \ 0.607537+1.012880I$	$5.51021+3.73980I$	0
$u=\ \ 1.33863+0.65073I$ $a=\ \ 1.208010-0.111880I$ $b=\ \ 0.516267+1.272760I$	$4.03794+12.50820I$	0
$u=\ \ 1.33863-0.65073I$ $a=\ \ 1.208010+0.111880I$ $b=\ \ 0.516267-1.272760I$	$4.03794-12.50820I$	0
$u=\ \ 1.36098+0.62304I$ $a=\ \ 1.370230+0.144426I$ $b=\ \ 0.580599+1.251450I$	$-0.89606+12.95830I$	0
$u=\ \ 1.36098-0.62304I$ $a=\ \ 1.370230-0.144426I$ $b=\ \ 0.580599-1.251450I$	$-0.89606-12.95830I$	0
$u=-1.42826+0.48916I$ $a=-1.330240+0.477275I$ $b=-0.67112+1.33613I$	$1.04356-11.46520I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.42826-0.48916I$ $a=-1.330240-0.477275I$ $b=-0.67112-1.33613I$	$1.04356+11.46520I$	0
$u=-1.38286+0.61148I$ $a=\ \ 1.41096-0.19613I$ $b=\ \ 0.67536-1.40823I$	$-0.1054-21.6726I$	0
$u=-1.38286-0.61148I$ $a=\ \ 1.41096+0.19613I$ $b=\ \ 0.67536+1.40823I$	$-0.1054+21.6726I$	0
$u=-1.29383+0.79073I$ $a=-0.841999-0.245615I$ $b=-0.52223+1.31926I$	$1.13538-6.24850I$	0
$u=-1.29383-0.79073I$ $a=-0.841999+0.245615I$ $b=-0.52223-1.31926I$	$1.13538+6.24850I$	0
$u=\ \ 1.53115+0.11320I$ $a=\ \ 0.395620+1.104480I$ $b=\ \ 0.133427+0.864948I$	$4.64027+6.10938I$	0
$u=\ \ 1.53115-0.11320I$ $a=\ \ 0.395620-1.104480I$ $b=\ \ 0.133427-0.864948I$	$4.64027-6.10938I$	0
$u=-0.460119$ $a=\ \ 1.08441$ $b=-0.340547$	1.05182	0
$u=\ \ 1.18740+1.01171I$ $a=\ \ 0.277458-0.364671I$ $b=\ \ 0.324161+0.832632I$	$1.05389-5.18007I$	0
$u=\ \ 1.18740-1.01171I$ $a=\ \ 0.277458+0.364671I$ $b=\ \ 0.324161-0.832632I$	$1.05389+5.18007I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.45823+0.64649I$ $a=-1.112750+0.245989I$ $b=-0.55912+1.32443I$	$-0.52017-11.56780I$	0
$u=-1.45823-0.64649I$ $a=-1.112750-0.245989I$ $b=-0.55912-1.32443I$	$-0.52017+11.56780I$	0
$u=0.119530+0.331870I$ $a=2.80516-0.23910I$ $b=-0.112247+1.282410I$	$-1.75110-2.62820I$	$0.+3.67631I$
$u=0.119530-0.331870I$ $a=2.80516+0.23910I$ $b=-0.112247-1.282410I$	$-1.75110+2.62820I$	$0.-3.67631I$
$u=-0.245713+0.186551I$ $a=1.072790-0.609357I$ $b=-0.603961+0.811619I$	$0.64720-2.34140I$	$-3.27818-7.06005I$
$u=-0.245713-0.186551I$ $a=1.072790+0.609357I$ $b=-0.603961-0.811619I$	$0.64720+2.34140I$	$-3.27818+7.06005I$
$u=0.278311+0.042481I$ $a=-1.24160+5.33275I$ $b=0.267518+0.061677I$	$1.30742-4.02675I$	$17.7258+15.4969I$
$u=0.278311-0.042481I$ $a=-1.24160-5.33275I$ $b=0.267518-0.061677I$	$1.30742+4.02675I$	$17.7258-15.4969I$
$u=0.226705+0.102402I$ $a=1.94999-3.98373I$ $b=-0.214072-0.668266I$	$-1.31537+3.32354I$	$0.86905-9.02412I$
$u=0.226705-0.102402I$ $a=1.94999+3.98373I$ $b=-0.214072+0.668266I$	$-1.31537-3.32354I$	$0.86905+9.02412I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.77517+0.17217I$ $a=-0.001781-0.213150I$ $b=-0.191134-0.777223I$	$2.46997+0.10098I$	0
$u=-1.77517-0.17217I$ $a=-0.001781+0.213150I$ $b=-0.191134+0.777223I$	$2.46997-0.10098I$	0
$u=1.71550+0.63147I$ $a=-0.512041-0.282629I$ $b=-0.208442-1.305870I$	$-1.71587+6.53925I$	0
$u=1.71550-0.63147I$ $a=-0.512041+0.282629I$ $b=-0.208442+1.305870I$	$-1.71587-6.53925I$	0
$u=-0.018053+0.164185I$ $a=-2.92803-1.90416I$ $b=-0.798884-0.486687I$	$1.16401+2.73937I$	$17.4815-8.7514I$
$u=-0.018053-0.164185I$ $a=-2.92803+1.90416I$ $b=-0.798884+0.486687I$	$1.16401-2.73937I$	$17.4815+8.7514I$
$u=2.27672+0.74106I$ $a=-0.063049-0.163872I$ $b=0.154434-0.903527I$	$1.22851-7.30464I$	0
$u=2.27672-0.74106I$ $a=-0.063049+0.163872I$ $b=0.154434+0.903527I$	$1.22851+7.30464I$	0

II. $I_2^u =$
$\langle \mathbf{5.47\times10^{48}u^{40}+2.46\times10^{49}u^{39}+\cdots+2.70\times10^{48}b-2.27\times10^{49},\ 5.87\times10^{49}u^{40}+3.07\times10^{50}u^{39}+\cdots+1.35\times10^{49}a+1.27\times10^{50},\ u^{41}+5u^{40}+\cdots+17u-5}\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -4.34835u^{40} - 22.7212u^{39} + \cdots + 0.998293u - 9.38747 \\ -2.02616u^{40} - 9.11191u^{39} + \cdots - 36.9962u + 8.41178 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.75510u^{40} - 10.2375u^{39} + \cdots + 23.8288u - 10.8108 \\ -2.99892u^{40} - 14.1358u^{39} + \cdots - 38.6567u + 7.42222 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.21832u^{40} - 6.85436u^{39} + \cdots + 9.36014u - 7.70394 \\ -1.23069u^{40} - 7.60457u^{39} + \cdots + 19.7911u - 8.46168 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 9.11101u^{40} + 53.1976u^{39} + \cdots - 120.556u + 56.6711 \\ 0.0824971u^{40} - 0.491234u^{39} + \cdots + 17.3221u - 1.61790 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -2.32219u^{40} - 13.6093u^{39} + \cdots + 37.9945u - 17.7993 \\ -2.02616u^{40} - 9.11191u^{39} + \cdots - 36.9962u + 8.41178 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2.24699u^{40} - 14.4754u^{39} + \cdots + 53.3138u - 17.0096 \\ -0.389983u^{40} - 5.11971u^{39} + \cdots + 75.9990u - 23.5898 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.178614u^{40} + 0.528432u^{39} + \cdots - 12.9226u + 9.05269 \\ -3.34438u^{40} - 14.6337u^{39} + \cdots - 76.2031u + 21.1434 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -2.65126u^{40} - 16.2030u^{39} + \cdots + 50.7181u - 17.4322 \\ -3.17298u^{40} - 16.6041u^{39} + \cdots + 11.2831u - 10.6264 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 32.5963u^{40} + 190.704u^{39} + \cdots - 515.049u + 237.460$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{41} - 9u^{40} + \cdots - 2u + 1$
c_2	$u^{41} + 5u^{40} + \cdots - u + 1$
c_3	$u^{41} + 3u^{40} + \cdots - 4u - 1$
c_4	$u^{41} - 5u^{40} + \cdots + 17u + 5$
c_5	$u^{41} - u^{40} + \cdots - 21u - 47$
c_6	$u^{41} - 2u^{40} + \cdots + u - 1$
c_7	$u^{41} + 4u^{40} + \cdots + 16u - 1$
c_8	$u^{41} + 5u^{40} + \cdots + 17u - 5$
c_9	$u^{41} + 10u^{40} + \cdots + 60u + 5$
c_{10}	$u^{41} - 3u^{40} + \cdots + u - 1$
c_{11}	$u^{41} + 13u^{39} + \cdots + 15u + 1$
c_{12}	$u^{41} - 10u^{40} + \cdots + 60u - 5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{41} + 17y^{40} + \cdots - 32y - 1$
c_2	$y^{41} + 21y^{40} + \cdots + 11y - 1$
c_3	$y^{41} - 5y^{40} + \cdots - 18y - 1$
c_4, c_8	$y^{41} - 35y^{40} + \cdots + 249y - 25$
c_5	$y^{41} - 15y^{40} + \cdots + 253y - 2209$
c_6	$y^{41} - 10y^{40} + \cdots - 7y - 1$
c_7	$y^{41} + 2y^{40} + \cdots + 44y - 1$
c_9, c_{12}	$y^{41} + 38y^{40} + \cdots - 660y - 25$
c_{10}	$y^{41} + 27y^{40} + \cdots + 7y - 1$
c_{11}	$y^{41} + 26y^{40} + \cdots - 89y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.957488+0.379503I$ $a=\ 2.35367+0.52228I$ $b=\ 0.557089-0.972886I$	$-0.34545-11.90450I$	$3.63394+11.58040I$
$u=-0.957488-0.379503I$ $a=\ 2.35367-0.52228I$ $b=\ 0.557089+0.972886I$	$-0.34545+11.90450I$	$3.63394-11.58040I$
$u=\ 0.902045+0.193438I$ $a=-0.82325+1.36961I$ $b=-0.415853-0.921908I$	$1.18581+2.31710I$	$-12.52482+3.65064I$
$u=\ 0.902045-0.193438I$ $a=-0.82325-1.36961I$ $b=-0.415853+0.921908I$	$1.18581-2.31710I$	$-12.52482-3.65064I$
$u=-0.600971+0.897471I$ $a=\ 0.181515-0.327165I$ $b=-0.305844-1.117910I$	$-3.97086-1.68855I$	$-1.70588+1.19800I$
$u=-0.600971-0.897471I$ $a=\ 0.181515+0.327165I$ $b=-0.305844+1.117910I$	$-3.97086+1.68855I$	$-1.70588-1.19800I$
$u=\ 0.915027+0.067011I$ $a=\ 2.53869+1.82320I$ $b=\ 0.086010+0.912256I$	$-0.13305-1.82571I$	$-18.9424+7.5213I$
$u=\ 0.915027-0.067011I$ $a=\ 2.53869-1.82320I$ $b=\ 0.086010-0.912256I$	$-0.13305+1.82571I$	$-18.9424-7.5213I$
$u=-0.876792+0.020099I$ $a=\ 0.92648+2.12882I$ $b=\ 0.52039+2.38106I$	$-2.92904-5.26176I$	$-6.54221+2.35934I$
$u=-0.876792-0.020099I$ $a=\ 0.92648-2.12882I$ $b=\ 0.52039-2.38106I$	$-2.92904+5.26176I$	$-6.54221-2.35934I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.080578 + 1.146840I$ $a = -0.185404 + 0.145685I$ $b = -0.279617 - 1.207800I$	$-4.49071 + 5.34842I$	$0. - 4.75350I$
$u = 0.080578 - 1.146840I$ $a = -0.185404 - 0.145685I$ $b = -0.279617 + 1.207800I$	$-4.49071 - 5.34842I$	$0. + 4.75350I$
$u = 0.777295 + 0.334272I$ $a = 2.08326 - 1.96810I$ $b = 0.120473 + 1.069180I$	$-0.77633 + 2.67541I$	$8.96357 + 8.62242I$
$u = 0.777295 - 0.334272I$ $a = 2.08326 + 1.96810I$ $b = 0.120473 - 1.069180I$	$-0.77633 - 2.67541I$	$8.96357 - 8.62242I$
$u = 0.842476 + 0.857852I$ $a = 0.896966 - 0.692070I$ $b = 0.100260 + 0.735844I$	$-1.70268 + 4.41930I$	0
$u = 0.842476 - 0.857852I$ $a = 0.896966 + 0.692070I$ $b = 0.100260 - 0.735844I$	$-1.70268 - 4.41930I$	0
$u = -0.898806 + 0.815996I$ $a = -1.081860 - 0.480367I$ $b = -0.451234 + 0.940610I$	$-3.03395 - 4.79635I$	$0. + 10.81450I$
$u = -0.898806 - 0.815996I$ $a = -1.081860 + 0.480367I$ $b = -0.451234 - 0.940610I$	$-3.03395 + 4.79635I$	$0. - 10.81450I$
$u = -1.247800 + 0.264420I$ $a = -1.63921 + 0.06906I$ $b = -1.318150 + 0.162838I$	$4.55317 - 5.23518I$	0
$u = -1.247800 - 0.264420I$ $a = -1.63921 - 0.06906I$ $b = -1.318150 - 0.162838I$	$4.55317 + 5.23518I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.257460+0.221112I$ $a=-0.592703+0.966419I$ $b=-0.22864+1.73271I$	$-1.32077-5.47563I$	0
$u=-1.257460-0.221112I$ $a=-0.592703-0.966419I$ $b=-0.22864-1.73271I$	$-1.32077+5.47563I$	0
$u=\ \ 0.710753$ $a=-3.32241$ $b=-1.08583$	1.94586	20.8440
$u=\ \ 1.298340+0.221730I$ $a=-0.875411+0.246688I$ $b=-1.013700+0.239474I$	$4.71356+0.44480I$	0
$u=\ \ 1.298340-0.221730I$ $a=-0.875411-0.246688I$ $b=-1.013700-0.239474I$	$4.71356-0.44480I$	0
$u=-1.399870+0.160763I$ $a=-0.528539+0.784957I$ $b=-0.150944+0.172690I$	$5.62801-5.67625I$	0
$u=-1.399870-0.160763I$ $a=-0.528539-0.784957I$ $b=-0.150944-0.172690I$	$5.62801+5.67625I$	0
$u=-0.287660+0.470566I$ $a=-0.75026+1.85561I$ $b=\ \ 0.239144-0.476386I$	$1.03875+3.74024I$	$2.84295+0.14200I$
$u=-0.287660-0.470566I$ $a=-0.75026-1.85561I$ $b=\ \ 0.239144+0.476386I$	$1.03875-3.74024I$	$2.84295-0.14200I$
$u=\ \ 1.47809+0.10591I$ $a=-0.009946+0.952592I$ $b=-0.179536+0.836799I$	$1.85002-0.24383I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 1.47809 - 0.10591I$ $a = -0.009946 - 0.952592I$ $b = -0.179536 - 0.836799I$	$1.85002 + 0.24383I$	0
$u = \ 1.33297 + 0.67769I$ $a = -0.923321 + 0.107847I$ $b = -0.52936 - 1.31394I$	$1.10505 + 5.99048I$	0
$u = \ 1.33297 - 0.67769I$ $a = -0.923321 - 0.107847I$ $b = -0.52936 + 1.31394I$	$1.10505 - 5.99048I$	0
$u = -1.41290 + 0.57681I$ $a = -1.273070 + 0.300890I$ $b = -0.59202 + 1.33662I$	$0.19751 - 11.46450I$	0
$u = -1.41290 - 0.57681I$ $a = -1.273070 - 0.300890I$ $b = -0.59202 - 1.33662I$	$0.19751 + 11.46450I$	0
$u = \ 0.427119 + 0.158906I$ $a = -1.11086 - 1.56410I$ $b = -0.03645 - 1.60697I$	$-6.10107 + 4.02054I$	$-5.00352 - 5.41019I$
$u = \ 0.427119 - 0.158906I$ $a = -1.11086 + 1.56410I$ $b = -0.03645 + 1.60697I$	$-6.10107 - 4.02054I$	$-5.00352 + 5.41019I$
$u = \ 0.072906 + 0.399103I$ $a = -0.044162 - 0.613200I$ $b = -0.722169 - 0.597689I$	$0.66271 + 2.77158I$	$-0.97313 - 11.19340I$
$u = \ 0.072906 - 0.399103I$ $a = -0.044162 + 0.613200I$ $b = -0.722169 + 0.597689I$	$0.66271 - 2.77158I$	$-0.97313 + 11.19340I$
$u = -2.04248 + 0.73394I$ $a = -0.181379 + 0.156175I$ $b = \ 0.143051 + 0.884801I$	$1.25143 + 7.15700I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-2.04248-0.73394I$		
$a=-0.181379-0.156175I$	$1.25143-7.15700I$	0
$b=\ \ 0.143051-0.884801I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{41}-9u^{40}+\cdots-2u+1)(u^{188}+6u^{187}+\cdots-20266u+1447)$
c_2	$(u^{41}+5u^{40}+\cdots-u+1)(u^{188}-10u^{187}+\cdots+235u+43)$
c_3	$(u^{41}+3u^{40}+\cdots-4u-1)(u^{188}-2u^{187}+\cdots+2896580u-507209)$
c_4	$(u^{41}-5u^{40}+\cdots+17u+5)(u^{188}+4u^{187}+\cdots-7531u-989)$
c_5	$(u^{41}-u^{40}+\cdots-21u-47)$ $\cdot(u^{188}+2u^{187}+\cdots+11973792223u+765934129)$
c_6	$(u^{41}-2u^{40}+\cdots+u-1)(u^{188}+u^{187}+\cdots+7u+1)$
c_7	$(u^{41}+4u^{40}+\cdots+16u-1)(u^{188}+3u^{187}+\cdots-30u+1)$
c_8	$(u^{41}+5u^{40}+\cdots+17u-5)(u^{188}+4u^{187}+\cdots-7531u-989)$
c_9	$(u^{41}+10u^{40}+\cdots+60u+5)(u^{188}-7u^{187}+\cdots+192850u+10363)$
c_{10}	$(u^{41}-3u^{40}+\cdots+u-1)(u^{188}+6u^{187}+\cdots+410u-76)$
c_{11}	$(u^{41}+13u^{39}+\cdots+15u+1)(u^{188}-u^{187}+\cdots+41u+1)$
c_{12}	$(u^{41}-10u^{40}+\cdots+60u-5)(u^{188}-7u^{187}+\cdots+192850u+10363)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{41}+17y^{40}+\cdots-32y-1)$ $\cdot(y^{188}+40y^{187}+\cdots-47377738y+2093809)$
c_2	$(y^{41}+21y^{40}+\cdots+11y-1)(y^{188}+8y^{187}+\cdots-114049y+1849)$
c_3	$(y^{41}-5y^{40}+\cdots-18y-1)$ $\cdot(y^{188}-58y^{187}+\cdots+8743433592384y+257260969681)$
c_4, c_8	$(y^{41}-35y^{40}+\cdots+249y-25)$ $\cdot(y^{188}-128y^{187}+\cdots-18934183y+978121)$
c_5	$(y^{41}-15y^{40}+\cdots+253y-2209)$ $\cdot(y^{188}-48y^{187}+\cdots+2.08\times10^{18}y+5.87\times10^{17})$
c_6	$(y^{41}-10y^{40}+\cdots-7y-1)(y^{188}-27y^{187}+\cdots+57y+1)$
c_7	$(y^{41}+2y^{40}+\cdots+44y-1)(y^{188}+5y^{187}+\cdots-2302y+1)$
c_9, c_{12}	$(y^{41}+38y^{40}+\cdots-660y-25)$ $\cdot(y^{188}+125y^{187}+\cdots-9867145482y+107391769)$
c_{10}	$(y^{41}+27y^{40}+\cdots+7y-1)(y^{188}+22y^{187}+\cdots-151228y+5776)$
c_{11}	$(y^{41}+26y^{40}+\cdots-89y-1)(y^{188}+29y^{187}+\cdots-229y+1)$