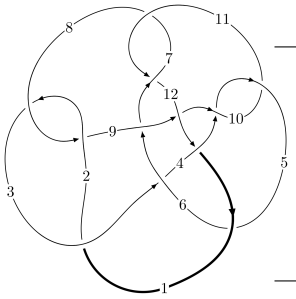
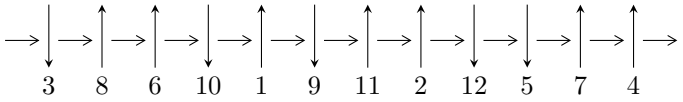
$12a_{0699}$ $(K12a_{0699})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -7.11942 \times 10^{639} u^{171} - 2.78587 \times 10^{640} u^{170} + \cdots + 7.11957 \times 10^{639} b - 5.07255 \times 10^{642}, \\ & - 7.87299 \times 10^{640} u^{171} + 1.65662 \times 10^{641} u^{170} + \cdots + 1.58766 \times 10^{642} a + 4.05831 \times 10^{644}, \\ & u^{172} + 4u^{171} + \cdots + 3076u + 892 \rangle \\ I_2^u = \langle & -1.03311 \times 10^{27} u^{41} + 2.27460 \times 10^{27} u^{40} + \cdots + 6.16398 \times 10^{26} b - 1.34436 \times 10^{27}, \\ & - 1.12761 \times 10^{27} u^{41} + 5.58166 \times 10^{27} u^{40} + \cdots + 1.23280 \times 10^{27} a + 2.62673 \times 10^{28}, \\ & u^{42} - 3u^{41} + \cdots - 12u + 4 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 214 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. $\boldsymbol{I_1^u = \langle -7.12 \times 10^{639} u^{171} - 2.79 \times 10^{640} u^{170} + \cdots + 7.12 \times 10^{639} b - 5.07 \times 10^{642},\ -7.87 \times 10^{640} u^{171} + 1.66 \times 10^{641} u^{170} + \cdots + 1.59 \times 10^{642} a + 4.06 \times 10^{644},\ u^{172} + 4u^{171} + \cdots + 3076u + 892 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0495885u^{171} - 0.104343u^{170} + \cdots - 649.335u - 255.615 \\ 0.999979u^{171} + 3.91298u^{170} + \cdots + 2666.54u + 712.480 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.665404u^{171} + 2.88035u^{170} + \cdots + 2516.78u + 747.159 \\ 0.126747u^{171} + 1.77211u^{170} + \cdots + 3409.29u + 1301.02 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.287095u^{171} + 0.685769u^{170} + \cdots - 221.459u - 186.229 \\ -0.251562u^{171} - 0.422463u^{170} + \cdots + 671.045u + 367.632 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.342578u^{171} + 1.55098u^{170} + \cdots + 1632.44u + 505.425 \\ 0.337631u^{171} + 1.40966u^{170} + \cdots + 1320.67u + 394.445 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.544119u^{171} + 2.29704u^{170} + \cdots + 1923.71u + 555.144 \\ -0.235368u^{171} + 0.434597u^{170} + \cdots + 2601.45u + 1111.53 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0899103u^{171} - 0.494492u^{170} + \cdots - 786.015u - 270.909 \\ 0.825414u^{171} + 3.01234u^{170} + \cdots + 1579.13u + 313.228 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.406398u^{171} - 1.22172u^{170} + \cdots - 330.601u + 14.3430 \\ -0.116379u^{171} - 0.131742u^{170} + \cdots + 311.010u + 166.678 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.257423u^{171} - 2.68415u^{170} + \cdots - 4456.58u - 1644.95$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{172} + 76u^{171} + \cdots + 25122848u + 795664$
c_2, c_8	$u^{172} + 4u^{171} + \cdots + 3076u + 892$
c_3	$81(81u^{172} + 2313u^{171} + \cdots + 27u + 1)$
c_4, c_{10}	$9(9u^{172} - 21u^{171} + \cdots + 3804472u + 145372)$
c_5	$u^{172} - 3u^{171} + \cdots + 1853937u + 164349$
c_6	$u^{172} - 5u^{171} + \cdots - 7246383780u + 366700275$
c_7, c_{11}	$9(9u^{172} - 30u^{171} + \cdots + 1621697u + 523514)$
c_9	$u^{172} - 13u^{171} + \cdots - 15667632934u + 1387956497$
c_{12}	$u^{172} + 17u^{171} + \cdots + 338848083u + 26871588$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{172} + 48y^{171} + \cdots + 43751823032704y + 633081200896$
c_2, c_8	$y^{172} + 76y^{171} + \cdots + 25122848y + 795664$
c_3	$6561(6561y^{172} - 327483y^{171} + \cdots + 571y + 1)$
c_4, c_{10}	$81(81y^{172} - 9927y^{171} + \cdots - 4.86749 \times 10^{12}y + 2.11330 \times 10^{10})$
c_5	$y^{172} - 9y^{171} + \cdots + 646282891935y + 27010593801$
c_6	$y^{172} - 23y^{171} + \cdots - 1.08 \times 10^{19}y + 1.34 \times 10^{17}$
c_7, c_{11}	$81(81y^{172} + 7650y^{171} + \cdots + 6.61151 \times 10^{12}y + 2.74067 \times 10^{11})$
c_9	$y^{172} - 63y^{171} + \cdots - 2.69 \times 10^{19}y + 1.93 \times 10^{18}$
c_{12}	$y^{172} + 31y^{171} + \cdots + 33369002886734055y + 722082241641744$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.444314+0.896690I$ $a=1.113900+0.174810I$ $b=2.66959-1.09722I$	$-4.76658-4.24724I$	0
$u=-0.444314-0.896690I$ $a=1.113900-0.174810I$ $b=2.66959+1.09722I$	$-4.76658+4.24724I$	0
$u=-0.677854+0.721137I$ $a=0.405323+0.565729I$ $b=0.645666+0.622245I$	$4.17273-0.06185I$	0
$u=-0.677854-0.721137I$ $a=0.405323-0.565729I$ $b=0.645666-0.622245I$	$4.17273+0.06185I$	0
$u=-0.957946+0.326646I$ $a=-0.645620+0.881778I$ $b=-0.649863-0.453342I$	$-1.18665-3.57370I$	0
$u=-0.957946-0.326646I$ $a=-0.645620-0.881778I$ $b=-0.649863+0.453342I$	$-1.18665+3.57370I$	0
$u=0.595294+0.786960I$ $a=0.773630-0.035104I$ $b=0.627151+0.821745I$	$0.88993+1.85918I$	0
$u=0.595294-0.786960I$ $a=0.773630+0.035104I$ $b=0.627151-0.821745I$	$0.88993-1.85918I$	0
$u=0.922311+0.350507I$ $a=0.138078+0.904791I$ $b=0.436870-0.791878I$	$1.64081-1.77100I$	0
$u=0.922311-0.350507I$ $a=0.138078-0.904791I$ $b=0.436870+0.791878I$	$1.64081+1.77100I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.504799 + 0.880123I$ $a = 1.57977 - 1.78074I$ $b = 1.82823 - 1.63741I$	$-1.62431 + 2.07905I$	0
$u = 0.504799 - 0.880123I$ $a = 1.57977 + 1.78074I$ $b = 1.82823 + 1.63741I$	$-1.62431 - 2.07905I$	0
$u = -0.775463 + 0.607818I$ $a = -0.785572 - 0.443717I$ $b = -0.666606 + 0.025546I$	$3.02226 + 3.08004I$	0
$u = -0.775463 - 0.607818I$ $a = -0.785572 + 0.443717I$ $b = -0.666606 - 0.025546I$	$3.02226 - 3.08004I$	0
$u = -0.918010 + 0.344848I$ $a = -0.168441 - 0.974586I$ $b = -0.088221 + 0.940929I$	$0.83568 + 5.69605I$	0
$u = -0.918010 - 0.344848I$ $a = -0.168441 + 0.974586I$ $b = -0.088221 - 0.940929I$	$0.83568 - 5.69605I$	0
$u = 0.863576 + 0.542838I$ $a = 0.870045 + 0.274052I$ $b = 0.565989 - 0.009645I$	$1.22443 - 1.30449I$	0
$u = 0.863576 - 0.542838I$ $a = 0.870045 - 0.274052I$ $b = 0.565989 + 0.009645I$	$1.22443 + 1.30449I$	0
$u = -0.438231 + 0.875440I$ $a = 0.283520 - 1.028340I$ $b = -1.046310 - 0.298808I$	$-4.68377 + 0.63646I$	0
$u = -0.438231 - 0.875440I$ $a = 0.283520 + 1.028340I$ $b = -1.046310 + 0.298808I$	$-4.68377 - 0.63646I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.335203+0.918267I$ $a=\ \ 0.352550+0.576852I$ $b=-0.380013-0.337924I$	$-2.95880+2.07571I$	0
$u=-0.335203-0.918267I$ $a=\ \ 0.352550-0.576852I$ $b=-0.380013+0.337924I$	$-2.95880-2.07571I$	0
$u=\ \ 0.345935+0.964013I$ $a=-1.032810-0.922639I$ $b=-2.23306-0.29354I$	$-7.39431+0.13825I$	0
$u=\ \ 0.345935-0.964013I$ $a=-1.032810+0.922639I$ $b=-2.23306+0.29354I$	$-7.39431-0.13825I$	0
$u=\ \ 0.517845+0.820411I$ $a=-0.687604-0.880904I$ $b=-0.611455+1.264570I$	$0.817136+1.106290I$	0
$u=\ \ 0.517845-0.820411I$ $a=-0.687604+0.880904I$ $b=-0.611455-1.264570I$	$0.817136-1.106290I$	0
$u=-0.680910+0.690973I$ $a=\ \ 0.327286-1.001280I$ $b=-0.674580+0.669526I$	$0.01320+2.08002I$	0
$u=-0.680910-0.690973I$ $a=\ \ 0.327286+1.001280I$ $b=-0.674580-0.669526I$	$0.01320-2.08002I$	0
$u=\ \ 0.448811+0.853822I$ $a=\ \ 0.985866+0.278785I$ $b=\ \ 2.51959+1.06869I$	$0.017064+1.122660I$	0
$u=\ \ 0.448811-0.853822I$ $a=\ \ 0.985866-0.278785I$ $b=\ \ 2.51959-1.06869I$	$0.017064-1.122660I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.713920 + 0.751808I$ $a = -0.600950 - 0.769742I$ $b = 0.826454 - 0.958050I$	$-2.49145 - 4.60127I$	0
$u = 0.713920 - 0.751808I$ $a = -0.600950 + 0.769742I$ $b = 0.826454 + 0.958050I$	$-2.49145 + 4.60127I$	0
$u = 0.526737 + 0.893857I$ $a = -1.048730 - 0.367243I$ $b = -3.28141 - 0.07709I$	$0.56641 + 3.12116I$	0
$u = 0.526737 - 0.893857I$ $a = -1.048730 + 0.367243I$ $b = -3.28141 + 0.07709I$	$0.56641 - 3.12116I$	0
$u = -0.141666 + 1.028690I$ $a = -0.250314 - 0.119199I$ $b = -0.87760 - 1.18524I$	$-5.97488 + 0.13240I$	0
$u = -0.141666 - 1.028690I$ $a = -0.250314 + 0.119199I$ $b = -0.87760 + 1.18524I$	$-5.97488 - 0.13240I$	0
$u = 0.895020 + 0.528313I$ $a = -0.182144 - 1.282520I$ $b = 0.034532 + 0.643268I$	$-0.37073 - 8.17547I$	0
$u = 0.895020 - 0.528313I$ $a = -0.182144 + 1.282520I$ $b = 0.034532 - 0.643268I$	$-0.37073 + 8.17547I$	0
$u = 0.770491 + 0.573420I$ $a = 1.091530 - 0.128106I$ $b = 1.059010 + 0.053499I$	$2.47051 + 2.46378I$	0
$u = 0.770491 - 0.573420I$ $a = 1.091530 + 0.128106I$ $b = 1.059010 - 0.053499I$	$2.47051 - 2.46378I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.916707+0.490817I$ $a=-0.005551-1.190440I$ $b=-0.252125+0.527816I$	$0.63068+3.00510I$	0
$u=-0.916707-0.490817I$ $a=-0.005551+1.190440I$ $b=-0.252125-0.527816I$	$0.63068-3.00510I$	0
$u=0.825637+0.472579I$ $a=-1.142920+0.377601I$ $b=-0.928136+0.049806I$	$-0.52169-8.45025I$	0
$u=0.825637-0.472579I$ $a=-1.142920-0.377601I$ $b=-0.928136-0.049806I$	$-0.52169+8.45025I$	0
$u=0.066014+1.047780I$ $a=-0.146720+0.681990I$ $b=-0.033766+0.628880I$	$-2.79005+2.53157I$	0
$u=0.066014-1.047780I$ $a=-0.146720-0.681990I$ $b=-0.033766-0.628880I$	$-2.79005-2.53157I$	0
$u=0.483322+0.932023I$ $a=0.258193+0.772674I$ $b=-0.108470-0.108813I$	$-0.31059+2.59895I$	0
$u=0.483322-0.932023I$ $a=0.258193-0.772674I$ $b=-0.108470+0.108813I$	$-0.31059-2.59895I$	0
$u=0.492063+0.809699I$ $a=-0.59461+1.53435I$ $b=-0.606376+0.926960I$	$-1.41878+2.03132I$	0
$u=0.492063-0.809699I$ $a=-0.59461-1.53435I$ $b=-0.606376-0.926960I$	$-1.41878-2.03132I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.494341+0.931042I$ $a=-0.471579+0.598238I$ $b=\ \ 0.06205-1.89940I$	$-2.32153-7.32120I$	0
$u=-0.494341-0.931042I$ $a=-0.471579-0.598238I$ $b=\ \ 0.06205+1.89940I$	$-2.32153+7.32120I$	0
$u=-0.250076+0.907912I$ $a=\ \ 1.45144-0.85887I$ $b=\ \ 2.20724-0.96331I$	$-7.40070+5.79515I$	0
$u=-0.250076-0.907912I$ $a=\ \ 1.45144+0.85887I$ $b=\ \ 2.20724+0.96331I$	$-7.40070-5.79515I$	0
$u=-0.453438+0.810747I$ $a=-0.855395+0.376915I$ $b=-3.97782+0.23710I$	$-1.86220+3.43609I$	0
$u=-0.453438-0.810747I$ $a=-0.855395-0.376915I$ $b=-3.97782-0.23710I$	$-1.86220-3.43609I$	0
$u=-0.500829+0.961519I$ $a=-0.456635-0.650896I$ $b=-0.513687-0.947118I$	$-3.89524-5.47159I$	0
$u=-0.500829-0.961519I$ $a=-0.456635+0.650896I$ $b=-0.513687+0.947118I$	$-3.89524+5.47159I$	0
$u=-0.687457+0.852804I$ $a=-0.640423+0.466864I$ $b=\ \ 0.65771+1.71387I$	$2.36278-2.64451I$	0
$u=-0.687457-0.852804I$ $a=-0.640423-0.466864I$ $b=\ \ 0.65771-1.71387I$	$2.36278+2.64451I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.983258+0.491988I$ $a=-0.030148+1.309630I$ $b=\ \ 0.184575-0.506908I$	$-3.9406+14.6159I$	0
$u=-0.983258-0.491988I$ $a=-0.030148-1.309630I$ $b=\ \ 0.184575+0.506908I$	$-3.9406-14.6159I$	0
$u=-0.608206+0.920459I$ $a=\ \ 0.909484-0.146029I$ $b=\ \ 2.83949-1.09248I$	$-0.65442-7.07658I$	0
$u=-0.608206-0.920459I$ $a=\ \ 0.909484+0.146029I$ $b=\ \ 2.83949+1.09248I$	$-0.65442+7.07658I$	0
$u=\ \ 1.043730+0.400521I$ $a=-0.002038+1.272240I$ $b=-0.130457-0.265102I$	$-0.75717-5.35150I$	0
$u=\ \ 1.043730-0.400521I$ $a=-0.002038-1.272240I$ $b=-0.130457+0.265102I$	$-0.75717+5.35150I$	0
$u=-0.443758+1.029070I$ $a=-0.812766+0.575345I$ $b=-2.10372+0.01711I$	$-4.04121-1.06499I$	0
$u=-0.443758-1.029070I$ $a=-0.812766-0.575345I$ $b=-2.10372-0.01711I$	$-4.04121+1.06499I$	0
$u=\ \ 0.550328+0.976342I$ $a=\ \ 1.220270-0.061283I$ $b=\ \ 2.46456+0.96409I$	$-6.08593+5.33871I$	0
$u=\ \ 0.550328-0.976342I$ $a=\ \ 1.220270+0.061283I$ $b=\ \ 2.46456-0.96409I$	$-6.08593-5.33871I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.534046 + 0.687237I$ $a = 0.488493 + 1.308980I$ $b = -0.825614 + 0.285354I$	$-5.15017 - 0.92884I$	0
$u = 0.534046 - 0.687237I$ $a = 0.488493 - 1.308980I$ $b = -0.825614 - 0.285354I$	$-5.15017 + 0.92884I$	0
$u = 0.639818 + 0.932642I$ $a = 0.065731 + 0.670333I$ $b = -0.611179 + 0.503384I$	$0.42180 + 3.01163I$	0
$u = 0.639818 - 0.932642I$ $a = 0.065731 - 0.670333I$ $b = -0.611179 - 0.503384I$	$0.42180 - 3.01163I$	0
$u = -0.593721 + 0.621763I$ $a = -0.49669 + 1.63921I$ $b = -0.021292 + 0.181530I$	$-4.13144 + 6.46662I$	0
$u = -0.593721 - 0.621763I$ $a = -0.49669 - 1.63921I$ $b = -0.021292 - 0.181530I$	$-4.13144 - 6.46662I$	0
$u = -0.640769 + 0.946193I$ $a = -0.542601 - 0.438875I$ $b = -0.452294 + 0.070085I$	$3.48415 - 5.05283I$	0
$u = -0.640769 - 0.946193I$ $a = -0.542601 + 0.438875I$ $b = -0.452294 - 0.070085I$	$3.48415 + 5.05283I$	0
$u = -0.636379 + 0.567392I$ $a = 0.236798 - 1.099070I$ $b = -0.382560 + 0.366833I$	$0.17613 + 1.99144I$	0
$u = -0.636379 - 0.567392I$ $a = 0.236798 + 1.099070I$ $b = -0.382560 - 0.366833I$	$0.17613 - 1.99144I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.581960+0.991557I$ $a=-1.42283+0.05743I$ $b=-2.72033+0.32539I$	$-5.24765-11.16740I$	0
$u=-0.581960-0.991557I$ $a=-1.42283-0.05743I$ $b=-2.72033-0.32539I$	$-5.24765+11.16740I$	0
$u=0.666047+0.938720I$ $a=-0.826880-0.303795I$ $b=-0.56790-1.81639I$	$-3.06633+9.89751I$	0
$u=0.666047-0.938720I$ $a=-0.826880+0.303795I$ $b=-0.56790+1.81639I$	$-3.06633-9.89751I$	0
$u=-0.063640+1.150590I$ $a=-0.917822+0.379717I$ $b=-2.67930-0.03013I$	$-5.70391+1.36026I$	0
$u=-0.063640-1.150590I$ $a=-0.917822-0.379717I$ $b=-2.67930+0.03013I$	$-5.70391-1.36026I$	0
$u=-0.149823+1.151860I$ $a=1.137490-0.237386I$ $b=2.86725-0.57716I$	$-11.44810+0.42410I$	0
$u=-0.149823-1.151860I$ $a=1.137490+0.237386I$ $b=2.86725+0.57716I$	$-11.44810-0.42410I$	0
$u=-0.912722+0.726373I$ $a=0.526428-0.541434I$ $b=0.338926-0.134167I$	$2.03330+0.16994I$	0
$u=-0.912722-0.726373I$ $a=0.526428+0.541434I$ $b=0.338926+0.134167I$	$2.03330-0.16994I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.510475 + 1.062640I$ $a = 1.124650 + 0.115723I$ $b = 3.43709 + 0.05722I$	$-7.89103 + 10.03170I$	0
$u = 0.510475 - 1.062640I$ $a = 1.124650 - 0.115723I$ $b = 3.43709 - 0.05722I$	$-7.89103 - 10.03170I$	0
$u = 0.086602 + 1.178420I$ $a = -0.075206 - 0.992788I$ $b = 0.281628 - 0.697506I$	$-6.14702 - 6.30554I$	0
$u = 0.086602 - 1.178420I$ $a = -0.075206 + 0.992788I$ $b = 0.281628 + 0.697506I$	$-6.14702 + 6.30554I$	0
$u = -0.765738 + 0.904306I$ $a = -0.376451 + 0.390915I$ $b = -0.330694 - 0.884347I$	$-2.78263 - 4.87703I$	0
$u = -0.765738 - 0.904306I$ $a = -0.376451 - 0.390915I$ $b = -0.330694 + 0.884347I$	$-2.78263 + 4.87703I$	0
$u = -0.642305 + 1.004790I$ $a = 0.860395 - 0.045405I$ $b = 2.00356 - 0.77879I$	$-1.02976 - 7.05861I$	0
$u = -0.642305 - 1.004790I$ $a = 0.860395 + 0.045405I$ $b = 2.00356 + 0.77879I$	$-1.02976 + 7.05861I$	0
$u = 0.347976 + 1.152370I$ $a = -0.848161 - 0.539875I$ $b = -2.61179 - 0.70726I$	$-8.96205 - 2.66335I$	0
$u = 0.347976 - 1.152370I$ $a = -0.848161 + 0.539875I$ $b = -2.61179 + 0.70726I$	$-8.96205 + 2.66335I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.045994+1.208720I$ $a=\ \ 1.050720+0.240655I$ $b=\ \ 2.84566+0.14258I$	$-6.97404-6.28993I$	0
$u=-0.045994-1.208720I$ $a=\ \ 1.050720-0.240655I$ $b=\ \ 2.84566-0.14258I$	$-6.97404+6.28993I$	0
$u=-0.782595+0.049312I$ $a=\ \ 0.46790-1.74852I$ $b=\ \ 0.432361-0.211392I$	$-6.35993+3.64195I$	0
$u=-0.782595-0.049312I$ $a=\ \ 0.46790+1.74852I$ $b=\ \ 0.432361+0.211392I$	$-6.35993-3.64195I$	0
$u=-0.017393+1.216130I$ $a=-0.672124+0.276089I$ $b=-1.73944+0.12978I$	$-5.25398+0.42939I$	0
$u=-0.017393-1.216130I$ $a=-0.672124-0.276089I$ $b=-1.73944-0.12978I$	$-5.25398-0.42939I$	0
$u=-0.479079+1.118270I$ $a=\ \ 1.194660-0.647803I$ $b=\ \ 2.15933-0.47152I$	$-9.40889-7.95906I$	0
$u=-0.479079-1.118270I$ $a=\ \ 1.194660+0.647803I$ $b=\ \ 2.15933+0.47152I$	$-9.40889+7.95906I$	0
$u=-0.680586+0.384722I$ $a=-0.45789+1.66515I$ $b=-0.391882-0.402950I$	$-6.73975+2.79464I$	0
$u=-0.680586-0.384722I$ $a=-0.45789-1.66515I$ $b=-0.391882+0.402950I$	$-6.73975-2.79464I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.588182+1.071450I$ $a=-1.162080+0.322983I$ $b=-2.95236+0.21370I$	$-8.64367-7.69534I$	0
$u=-0.588182-1.071450I$ $a=-1.162080-0.322983I$ $b=-2.95236-0.21370I$	$-8.64367+7.69534I$	0
$u=-0.668192+1.026540I$ $a=0.409160+0.683331I$ $b=0.816883+0.570220I$	$1.76470-8.54105I$	0
$u=-0.668192-1.026540I$ $a=0.409160-0.683331I$ $b=0.816883-0.570220I$	$1.76470+8.54105I$	0
$u=-0.686852+0.355106I$ $a=0.238540+0.364318I$ $b=-0.164540-1.328740I$	$-0.55444-5.45753I$	0
$u=-0.686852-0.355106I$ $a=0.238540-0.364318I$ $b=-0.164540+1.328740I$	$-0.55444+5.45753I$	0
$u=0.656562+1.055890I$ $a=-0.080967+0.925475I$ $b=-0.393859+0.568642I$	$1.01648+2.93624I$	0
$u=0.656562-1.055890I$ $a=-0.080967-0.925475I$ $b=-0.393859-0.568642I$	$1.01648-2.93624I$	0
$u=0.927455+0.837277I$ $a=-0.498101-0.646233I$ $b=-0.240552+0.301119I$	$-3.68777+0.43923I$	0
$u=0.927455-0.837277I$ $a=-0.498101+0.646233I$ $b=-0.240552-0.301119I$	$-3.68777-0.43923I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.699378+1.039980I$ $a=-0.638584+0.397046I$ $b=-2.25743+0.14449I$	$-3.30595-0.95623I$	0
$u=-0.699378-1.039980I$ $a=-0.638584-0.397046I$ $b=-2.25743-0.14449I$	$-3.30595+0.95623I$	0
$u=0.642665+1.101750I$ $a=0.345170-0.963796I$ $b=0.719881-0.810505I$	$-2.4061+13.9409I$	0
$u=0.642665-1.101750I$ $a=0.345170+0.963796I$ $b=0.719881+0.810505I$	$-2.4061-13.9409I$	0
$u=0.264077+0.673674I$ $a=1.29152+1.18764I$ $b=0.74869-1.27455I$	$-6.07103-6.32932I$	0
$u=0.264077-0.673674I$ $a=1.29152-1.18764I$ $b=0.74869+1.27455I$	$-6.07103+6.32932I$	0
$u=0.681599+1.082700I$ $a=0.134370+0.657059I$ $b=0.258268+0.589139I$	$-0.41201+7.03495I$	0
$u=0.681599-1.082700I$ $a=0.134370-0.657059I$ $b=0.258268-0.589139I$	$-0.41201-7.03495I$	0
$u=-0.540420+1.162560I$ $a=-0.227643-1.141750I$ $b=-0.537698-0.701552I$	$0.61489-4.28687I$	0
$u=-0.540420-1.162560I$ $a=-0.227643+1.141750I$ $b=-0.537698+0.701552I$	$0.61489+4.28687I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.788810+1.011920I$ $a=\ \ 0.513013-0.355072I$ $b=\ \ 0.744637-0.365076I$	$1.14956-6.41226I$	0
$u=-0.788810-1.011920I$ $a=\ \ 0.513013+0.355072I$ $b=\ \ 0.744637+0.365076I$	$1.14956+6.41226I$	0
$u=-0.331418+1.252360I$ $a=-1.249400-0.109446I$ $b=-2.51498+0.24385I$	$-10.45800-0.42555I$	0
$u=-0.331418-1.252360I$ $a=-1.249400+0.109446I$ $b=-2.51498-0.24385I$	$-10.45800+0.42555I$	0
$u=\ \ 0.684588+1.105040I$ $a=-1.075300-0.180460I$ $b=-2.91900-0.36811I$	$-2.1363+14.0057I$	0
$u=\ \ 0.684588-1.105040I$ $a=-1.075300+0.180460I$ $b=-2.91900+0.36811I$	$-2.1363-14.0057I$	0
$u=-0.675386+1.113300I$ $a=\ \ 1.016630-0.060912I$ $b=\ \ 2.74757-0.36531I$	$-1.25825-8.83169I$	0
$u=-0.675386-1.113300I$ $a=\ \ 1.016630+0.060912I$ $b=\ \ 2.74757+0.36531I$	$-1.25825+8.83169I$	0
$u=\ \ 0.643791+1.146680I$ $a=\ \ 0.814069+0.253912I$ $b=\ \ 2.50860-0.11570I$	$-0.69877+7.44187I$	0
$u=\ \ 0.643791-1.146680I$ $a=\ \ 0.814069-0.253912I$ $b=\ \ 2.50860+0.11570I$	$-0.69877-7.44187I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.641094+1.173750I$ $a=0.827861-0.036357I$ $b=2.80341+0.02929I$	$-1.63938-11.40190I$	0
$u=-0.641094-1.173750I$ $a=0.827861+0.036357I$ $b=2.80341-0.02929I$	$-1.63938+11.40190I$	0
$u=1.230200+0.547429I$ $a=-0.555397-0.725269I$ $b=-0.743641+0.362584I$	$-3.71179+8.04112I$	0
$u=1.230200-0.547429I$ $a=-0.555397+0.725269I$ $b=-0.743641-0.362584I$	$-3.71179-8.04112I$	0
$u=-0.700559+1.151710I$ $a=-1.113040+0.098573I$ $b=-2.84418+0.36066I$	$-5.9883-20.7343I$	0
$u=-0.700559-1.151710I$ $a=-1.113040-0.098573I$ $b=-2.84418-0.36066I$	$-5.9883+20.7343I$	0
$u=0.044583+1.354140I$ $a=1.027920-0.307042I$ $b=2.58481-0.16838I$	$-11.1025+11.7776I$	0
$u=0.044583-1.354140I$ $a=1.027920+0.307042I$ $b=2.58481+0.16838I$	$-11.1025-11.7776I$	0
$u=0.589855+0.190021I$ $a=0.451091-0.236965I$ $b=0.337803+0.590121I$	$1.34897+0.76998I$	$6.26626+0.I$
$u=0.589855-0.190021I$ $a=0.451091+0.236965I$ $b=0.337803-0.590121I$	$1.34897-0.76998I$	$6.26626+0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.695522 + 1.197130I$ $a = 1.111910 + 0.102479I$ $b = 2.56009 + 0.32524I$	$-3.20590 + 11.58900I$	0
$u = 0.695522 - 1.197130I$ $a = 1.111910 - 0.102479I$ $b = 2.56009 - 0.32524I$	$-3.20590 - 11.58900I$	0
$u = -0.493134 + 0.360737I$ $a = 1.56042 + 0.66302I$ $b = 1.47103 + 0.28255I$	$3.12020 - 0.18336I$	$-2.94808 - 7.99808I$
$u = -0.493134 - 0.360737I$ $a = 1.56042 - 0.66302I$ $b = 1.47103 - 0.28255I$	$3.12020 + 0.18336I$	$-2.94808 + 7.99808I$
$u = -0.085533 + 1.410320I$ $a = -0.656461 + 0.151825I$ $b = -2.57331 - 0.09531I$	$-5.19581 + 1.79129I$	0
$u = -0.085533 - 1.410320I$ $a = -0.656461 - 0.151825I$ $b = -2.57331 + 0.09531I$	$-5.19581 - 1.79129I$	0
$u = 0.85937 + 1.12846I$ $a = -0.695878 - 0.351679I$ $b = -1.97981 - 0.32748I$	$-4.47939 + 6.42168I$	0
$u = 0.85937 - 1.12846I$ $a = -0.695878 + 0.351679I$ $b = -1.97981 + 0.32748I$	$-4.47939 - 6.42168I$	0
$u = 0.149090 + 0.552591I$ $a = -2.19797 + 0.21508I$ $b = -1.086190 + 0.367660I$	$-6.08787 + 2.36077I$	$-0.72546 - 4.88715I$
$u = 0.149090 - 0.552591I$ $a = -2.19797 - 0.21508I$ $b = -1.086190 - 0.367660I$	$-6.08787 - 2.36077I$	$-0.72546 + 4.88715I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.526520 + 0.009788I$ $a = -0.83493 + 2.23542I$ $b = 0.154430 - 0.532936I$	$-5.62509 - 6.13069I$	$-4.55808 + 5.07224I$
$u = 0.526520 - 0.009788I$ $a = -0.83493 - 2.23542I$ $b = 0.154430 + 0.532936I$	$-5.62509 + 6.13069I$	$-4.55808 - 5.07224I$
$u = 0.080883 + 0.504788I$ $a = 1.35114 - 0.49765I$ $b = -0.103492 + 0.329879I$	$0.09172 + 1.48182I$	$1.10401 - 6.82765I$
$u = 0.080883 - 0.504788I$ $a = 1.35114 + 0.49765I$ $b = -0.103492 - 0.329879I$	$0.09172 - 1.48182I$	$1.10401 + 6.82765I$
$u = 0.45593 + 1.44403I$ $a = -0.816241 - 0.322591I$ $b = -2.07775 - 0.09937I$	$-7.37538 - 0.60806I$	0
$u = 0.45593 - 1.44403I$ $a = -0.816241 + 0.322591I$ $b = -2.07775 + 0.09937I$	$-7.37538 + 0.60806I$	0
$u = -0.371918 + 0.304593I$ $a = 1.30164 + 0.81341I$ $b = -0.175204 + 0.221393I$	$-2.52818 + 1.71195I$	$0.314881 - 0.743084I$
$u = -0.371918 - 0.304593I$ $a = 1.30164 - 0.81341I$ $b = -0.175204 - 0.221393I$	$-2.52818 - 1.71195I$	$0.314881 + 0.743084I$
$u = 0.311051 + 0.325277I$ $a = 2.40292 + 1.19843I$ $b = 0.722627 + 0.700650I$	$-1.25312 + 1.06674I$	$-2.78809 + 2.45086I$
$u = 0.311051 - 0.325277I$ $a = 2.40292 - 1.19843I$ $b = 0.722627 - 0.700650I$	$-1.25312 - 1.06674I$	$-2.78809 - 2.45086I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.17671 + 1.63164I$		
$a = -0.916678 - 0.094055I$	$-7.53781 - 0.80656I$	0
$b = -2.27792 - 0.07750I$		
$u = \quad 0.17671 - 1.63164I$		
$a = -0.916678 + 0.094055I$	$-7.53781 + 0.80656I$	0
$b = -2.27792 + 0.07750I$		

II. $\boldsymbol{I_2^u = \langle -1.03 \times 10^{27} u^{41} + 2.27 \times 10^{27} u^{40} + \cdots + 6.16 \times 10^{26} b - 1.34 \times 10^{27},\ -1.13 \times 10^{27} u^{41} + 5.58 \times 10^{27} u^{40} + \cdots + 1.23 \times 10^{27} a + 2.63 \times 10^{28},\ u^{42} - 3u^{41} + \cdots - 12u + 4 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.914675u^{41} - 4.52764u^{40} + \cdots + 43.2049u - 21.3071 \\ 1.67604u^{41} - 3.69014u^{40} + \cdots + 25.7051u + 2.18099 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.321019u^{41} + 0.427292u^{40} + \cdots - 10.9313u + 0.848029 \\ 0.312907u^{41} + 0.724784u^{40} + \cdots - 1.01865u - 0.172662 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.21086u^{41} - 1.30270u^{40} + \cdots - 7.62094u - 0.244597 \\ 1.20275u^{41} - 1.00521u^{40} + \cdots + 2.29168u - 1.26529 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -6.09759u^{41} + 14.8985u^{40} + \cdots - 50.9545u + 5.80510 \\ -2.01286u^{41} + 2.95185u^{40} + \cdots + 30.2819u - 17.7960 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.143670u^{41} + 1.45287u^{40} + \cdots - 24.1725u + 7.93115 \\ 0.0767440u^{41} + 2.64553u^{40} + \cdots - 16.0943u + 3.98975 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -3.52625u^{41} + 7.07224u^{40} + \cdots - 15.3843u + 0.0420225 \\ 0.999593u^{41} - 7.15450u^{40} + \cdots + 69.8060u - 21.8925 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 3.45400u^{41} - 6.72978u^{40} + \cdots + 0.860421u + 8.02329 \\ 0.514126u^{41} - 0.0217617u^{40} + \cdots - 3.07885u + 9.55373 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -7.30738u^{41} + 27.5774u^{40} + \cdots - 223.601u + 70.9079$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} - 23u^{41} + \cdots - 288u + 16$
c_2	$u^{42} - 3u^{41} + \cdots - 12u + 4$
c_3	$81(81u^{42} + 468u^{41} + \cdots - 2u + 1)$
c_4	$9(9u^{42} + 12u^{41} + \cdots - 94u^2 + 4)$
c_5	$u^{42} + 2u^{41} + \cdots - 666u + 81$
c_6	$u^{42} - 8u^{41} + \cdots - 147u + 9$
c_7	$9(9u^{42} + 3u^{41} + \cdots + 2u + 1)$
c_8	$u^{42} + 3u^{41} + \cdots + 12u + 4$
c_9	$u^{42} - 6u^{41} + \cdots + 11u + 1$
c_{10}	$9(9u^{42} - 12u^{41} + \cdots - 94u^2 + 4)$
c_{11}	$9(9u^{42} - 3u^{41} + \cdots - 2u + 1)$
c_{12}	$u^{42} - 6u^{41} + \cdots - 114u + 45$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{42} - y^{41} + \cdots + 3968y + 256$
c_2, c_8	$y^{42} + 23y^{41} + \cdots + 288y + 16$
c_3	$6561(6561y^{42} + 20736y^{41} + \cdots + 18y + 1)$
c_4, c_{10}	$81(81y^{42} - 2124y^{41} + \cdots - 752y + 16)$
c_5	$y^{42} - 2y^{41} + \cdots - 475470y + 6561$
c_6	$y^{42} + 12y^{41} + \cdots + 333y + 81$
c_7, c_{11}	$81(81y^{42} + 2169y^{41} + \cdots + 42y + 1)$
c_9	$y^{42} - 4y^{41} + \cdots - 67y + 1$
c_{12}	$y^{42} - 14y^{41} + \cdots + 21744y + 2025$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.563818+0.783332I$ $a=-1.372980-0.034283I$ $b=-1.57586-0.12497I$	$-1.49097-1.91309I$	$-5.52424+0.23480I$
$u=-0.563818-0.783332I$ $a=-1.372980+0.034283I$ $b=-1.57586+0.12497I$	$-1.49097+1.91309I$	$-5.52424-0.23480I$
$u=\ \ 0.860436+0.657451I$ $a=\ \ 0.473071+0.303820I$ $b=\ \ 0.444469-0.266171I$	$2.80332-0.24930I$	$8.06497-0.49027I$
$u=\ \ 0.860436-0.657451I$ $a=\ \ 0.473071-0.303820I$ $b=\ \ 0.444469+0.266171I$	$2.80332+0.24930I$	$8.06497+0.49027I$
$u=\ \ 0.667459+0.853078I$ $a=\ \ 0.550041+0.395826I$ $b=-0.82773+1.73658I$	$2.71792+2.58413I$	$15.5853-1.5314I$
$u=\ \ 0.667459-0.853078I$ $a=\ \ 0.550041-0.395826I$ $b=-0.82773-1.73658I$	$2.71792-2.58413I$	$15.5853+1.5314I$
$u=-1.010930+0.402711I$ $a=-0.040373-1.099230I$ $b=-0.158279+0.566491I$	$0.57146+3.74872I$	$2.00000-8.25312I$
$u=-1.010930-0.402711I$ $a=-0.040373+1.099230I$ $b=-0.158279-0.566491I$	$0.57146-3.74872I$	$2.00000+8.25312I$
$u=-0.577447+0.679015I$ $a=\ \ 0.412929-0.510408I$ $b=-2.03783-0.04867I$	$-1.13051+3.98189I$	$3.62847-5.76103I$
$u=-0.577447-0.679015I$ $a=\ \ 0.412929+0.510408I$ $b=-2.03783+0.04867I$	$-1.13051-3.98189I$	$3.62847+5.76103I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.122112+1.112880I$ $a=-0.770907+0.431127I$ $b=-2.83538-0.14710I$	$-6.60379+1.75566I$	$-10.76262-4.13273I$
$u=-0.122112-1.112880I$ $a=-0.770907-0.431127I$ $b=-2.83538+0.14710I$	$-6.60379-1.75566I$	$-10.76262+4.13273I$
$u=\ 0.148404+1.132450I$ $a=-1.097020-0.475151I$ $b=-2.63446-0.24182I$	$-8.20407-1.38929I$	$-7.76314+0.51690I$
$u=\ 0.148404-1.132450I$ $a=-1.097020+0.475151I$ $b=-2.63446+0.24182I$	$-8.20407+1.38929I$	$-7.76314-0.51690I$
$u=\ 0.499018+1.039060I$ $a=\ 1.249980+0.180036I$ $b=\ 3.02802-0.04065I$	$-6.91399+9.62031I$	$-2.08220-8.01037I$
$u=\ 0.499018-1.039060I$ $a=\ 1.249980-0.180036I$ $b=\ 3.02802+0.04065I$	$-6.91399-9.62031I$	$-2.08220+8.01037I$
$u=\ 0.925813+0.712394I$ $a=-0.808216-0.611579I$ $b=-0.909433-0.176185I$	$-3.92497+7.45356I$	$-4.40923-6.14039I$
$u=\ 0.925813-0.712394I$ $a=-0.808216+0.611579I$ $b=-0.909433+0.176185I$	$-3.92497-7.45356I$	$-4.40923+6.14039I$
$u=\ 0.024384+0.825784I$ $a=-1.267420+0.584240I$ $b=-0.503982+0.581943I$	$-6.92696+2.02105I$	$-10.29980-2.02118I$
$u=\ 0.024384-0.825784I$ $a=-1.267420-0.584240I$ $b=-0.503982-0.581943I$	$-6.92696-2.02105I$	$-10.29980+2.02118I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.608797+1.008580I$ $a=\ 0.511607-0.137433I$ $b=\ 1.26424-1.81546I$	$-2.20869-8.74828I$	$-1.92950+9.44348I$
$u=-0.608797-1.008580I$ $a=\ 0.511607+0.137433I$ $b=\ 1.26424+1.81546I$	$-2.20869+8.74828I$	$-1.92950-9.44348I$
$u=-0.611648+0.538823I$ $a=-0.513265+0.591162I$ $b=-0.05513-1.82049I$	$-1.27077-5.51591I$	$-3.02404+6.05282I$
$u=-0.611648-0.538823I$ $a=-0.513265-0.591162I$ $b=-0.05513+1.82049I$	$-1.27077+5.51591I$	$-3.02404-6.05282I$
$u=\ 0.406524+0.696325I$ $a=\ 1.06505+1.34521I$ $b=\ 0.937363-0.603903I$	$-5.62358-5.80911I$	$-0.343863+0.667863I$
$u=\ 0.406524-0.696325I$ $a=\ 1.06505-1.34521I$ $b=\ 0.937363+0.603903I$	$-5.62358+5.80911I$	$-0.343863-0.667863I$
$u=\ 0.554081+0.522321I$ $a=\ 1.055830-0.593791I$ $b=\ 1.31839-0.53447I$	$3.28793+0.50450I$	$6.85198-10.49433I$
$u=\ 0.554081-0.522321I$ $a=\ 1.055830+0.593791I$ $b=\ 1.31839+0.53447I$	$3.28793-0.50450I$	$6.85198+10.49433I$
$u=-0.085049+0.734033I$ $a=-0.850831-0.553454I$ $b=\ 0.51315-1.41912I$	$-5.03826-2.62235I$	$-6.35926+2.69903I$
$u=-0.085049-0.734033I$ $a=-0.850831+0.553454I$ $b=\ 0.51315+1.41912I$	$-5.03826+2.62235I$	$-6.35926-2.69903I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.750966 + 1.028920I$ $a = 0.282233 + 0.287681I$ $b = 0.709891 + 0.035727I$	$1.70245 + 6.22898I$	0
$u = 0.750966 - 1.028920I$ $a = 0.282233 - 0.287681I$ $b = 0.709891 - 0.035727I$	$1.70245 - 6.22898I$	0
$u = 0.580162 + 1.137410I$ $a = -0.171548 + 0.971937I$ $b = -0.391770 + 0.429968I$	$1.26236 + 4.17076I$	0
$u = 0.580162 - 1.137410I$ $a = -0.171548 - 0.971937I$ $b = -0.391770 - 0.429968I$	$1.26236 - 4.17076I$	0
$u = -0.172202 + 1.320470I$ $a = -0.571462 + 0.147285I$ $b = -2.12354 - 0.36231I$	$-4.83194 + 1.37631I$	0
$u = -0.172202 - 1.320470I$ $a = -0.571462 - 0.147285I$ $b = -2.12354 + 0.36231I$	$-4.83194 - 1.37631I$	0
$u = -0.681291 + 1.164370I$ $a = 0.943500 - 0.089394I$ $b = 2.65687 - 0.24599I$	$-1.73219 - 9.80641I$	0
$u = -0.681291 - 1.164370I$ $a = 0.943500 + 0.089394I$ $b = 2.65687 + 0.24599I$	$-1.73219 + 9.80641I$	0
$u = 0.283616 + 0.531969I$ $a = -1.056520 - 0.902883I$ $b = 0.12982 + 1.54742I$	$0.225842 - 0.306784I$	$0.616854 - 0.137025I$
$u = 0.283616 - 0.531969I$ $a = -1.056520 + 0.902883I$ $b = 0.12982 - 1.54742I$	$0.225842 + 0.306784I$	$0.616854 + 0.137025I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.23243 + 1.65235I$ $a = -0.857020 - 0.113009I$ $b = -2.28215 - 0.06621I$	$-7.66355 - 0.80423I$	0
$u = \quad 0.23243 - 1.65235I$ $a = -0.857020 + 0.113009I$ $b = -2.28215 + 0.06621I$	$-7.66355 + 0.80423I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{42}-23u^{41}+\cdots-288u+16)$ $\cdot(u^{172}+76u^{171}+\cdots+25122848u+795664)$
c_2	$(u^{42}-3u^{41}+\cdots-12u+4)(u^{172}+4u^{171}+\cdots+3076u+892)$
c_3	$6561(81u^{42}+468u^{41}+\cdots-2u+1)$ $\cdot(81u^{172}+2313u^{171}+\cdots+27u+1)$
c_4	$81(9u^{42}+12u^{41}+\cdots-94u^2+4)$ $\cdot(9u^{172}-21u^{171}+\cdots+3804472u+145372)$
c_5	$(u^{42}+2u^{41}+\cdots-666u+81)$ $\cdot(u^{172}-3u^{171}+\cdots+1853937u+164349)$
c_6	$(u^{42}-8u^{41}+\cdots-147u+9)$ $\cdot(u^{172}-5u^{171}+\cdots-7246383780u+366700275)$
c_7	$81(9u^{42}+3u^{41}+\cdots+2u+1)$ $\cdot(9u^{172}-30u^{171}+\cdots+1621697u+523514)$
c_8	$(u^{42}+3u^{41}+\cdots+12u+4)(u^{172}+4u^{171}+\cdots+3076u+892)$
c_9	$(u^{42}-6u^{41}+\cdots+11u+1)$ $\cdot(u^{172}-13u^{171}+\cdots-15667632934u+1387956497)$
c_{10}	$81(9u^{42}-12u^{41}+\cdots-94u^2+4)$ $\cdot(9u^{172}-21u^{171}+\cdots+3804472u+145372)$
c_{11}	$81(9u^{42}-3u^{41}+\cdots-2u+1)$ $\cdot(9u^{172}-30u^{171}+\cdots+1621697u+523514)$
c_{12}	$(u^{42}-6u^{41}+\cdots-114u+45)$ $\cdot(u^{172}+17u^{171}+\cdots+338848083u+26871588)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{42} - y^{41} + \cdots + 3968y + 256)$ $\cdot (y^{172} + 48y^{171} + \cdots + 43751823032704y + 633081200896)$
c_2, c_8	$(y^{42} + 23y^{41} + \cdots + 288y + 16)$ $\cdot (y^{172} + 76y^{171} + \cdots + 25122848y + 795664)$
c_3	$43046721(6561y^{42} + 20736y^{41} + \cdots + 18y + 1)$ $\cdot (6561y^{172} - 327483y^{171} + \cdots + 571y + 1)$
c_4, c_{10}	$6561(81y^{42} - 2124y^{41} + \cdots - 752y + 16)$ $\cdot (81y^{172} - 9927y^{171} + \cdots - 4867492246160y + 21133018384)$
c_5	$(y^{42} - 2y^{41} + \cdots - 475470y + 6561)$ $\cdot (y^{172} - 9y^{171} + \cdots + 646282891935y + 27010593801)$
c_6	$(y^{42} + 12y^{41} + \cdots + 333y + 81)$ $\cdot (y^{172} - 23y^{171} + \cdots - 1.08 \times 10^{19}y + 1.34 \times 10^{17})$
c_7, c_{11}	$6561(81y^{42} + 2169y^{41} + \cdots + 42y + 1)$ $\cdot (81y^{172} + 7650y^{171} + \cdots + 6611505111207y + 274066908196)$
c_9	$(y^{42} - 4y^{41} + \cdots - 67y + 1)$ $\cdot (y^{172} - 63y^{171} + \cdots - 2.69 \times 10^{19}y + 1.93 \times 10^{18})$
c_{12}	$(y^{42} - 14y^{41} + \cdots + 21744y + 2025)$ $\cdot (y^{172} + 31y^{171} + \cdots + 33369002886734055y + 722082241641744)$